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# USSR Report

INTERNATIONAL ECONOMIC RELATIONS

No. 46



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## USSR-CEMA TRADE

### CEMA 1981 PLAN FULFILLMENT PRELIMINARY RESULTS

Moscow EKONOMICHESKOYE SOTRUDNICHESTVO STRAN-CHLENOV SEV in Russian No 6,  
Jun 82 pp 22-29

[Article prepared by the CEMA Secretariat Department of Economic Information, published under the heading "CEMA Agency Activity": "Information on the Basic Results of 1981 Activity by the Council for Economic Mutual Assistance"]

[Text] This past year, 1981, was the 10th anniversary of implementation of the "Comprehensive Program." This past decade has confirmed the correctness of the strategic policy of comprehensively developing socialist economic integration which was worked out by the communist and worker parties of CEMA member-nations.

The 25th CEMA Session meeting in Sofia (July 1981) emphasized that, on the whole, the Comprehensive Program is being carried out successfully. Over the past decade, Council member-nations have nearly doubled the rates of growth in national income and industrial output of the developed capitalist countries. The session verified with satisfaction that CEMA member-nations, using the advantages of the socialist system, based on their own efforts and relying on mutual cooperation, have advanced significantly in economic development, increased their economic and scientific-technical potential, and ensured improvement in the material and cultural standards of living of their peoples.

A leading role in ensuring the successful fulfillment of the Comprehensive Program belongs to the communist and worker parties of CEMA member-nations. Progress in implementing it is the subject of constant attention within the framework of bilateral and multilateral talks among leaders of the fraternal parties and states, and in particular, at meetings between Comrade L. I. Brezhnev, CPSU Central Committee General Secretary and USSR Supreme Soviet Presidium Chairman, and the leaders of fraternal parties and countries in the Crimea.

The CPSU Central Committee document on the results of the Crimea meetings held in 1981 notes that the socialist states as a whole have available to them opportunities for solving such cardinal national economic problems as increasing power capacities, achieving a qualitatively new level in machinebuilding and fully meeting the demand for consumer goods and agricultural products. It is towards precisely these areas that the development of socialist economic integration, and the current deepening of the international socialist division of labor are aimed.



The first year of fulfillment of new five-year national economic plans in CEMA member-nations aimed at implementing the economic strategy of further improving the material and cultural standards of living of their peoples on the basis of comprehensive intensification of social production, accelerating scientific-technical progress, deepening cooperation and developing socialist economic integration concluded in 1981.

Development of the CEMA member-nation national economy during this period occurred under complex international circumstances. The world economic market continued to deteriorate. The discriminatory policy of the imperialist states regarding CEMA member-nations became more brutal. The increasingly complex conditions under which fuel, energy and raw-material problems are being solved also affected the implementation of national economic plans.

National income (preliminary data here and throughout) increased 3.2 percent in the PRB [People's Republic of Bulgaria] in 1981 as compared with 1980, by two percent in the HPR [Hungarian People's Republic], five percent in the GDR, 10.5 percent in the Republic of Cuba (social gross product), 7.6 percent in the MPR [Mongolian People's Republic], 2.1 percent in the SRR [Socialist Republic of Romania], 3.2 percent in the USSR. In the CSSR [Czechoslovak Socialist Republic], national income was slightly higher than the preceding year's level, and in the PPR [Polish People's Republic] it decreased by 13 percent.

Given the changeover of industry in CEMA member-nations to a path of intensive development, industrial production increased 4.8 percent in the PRB, 2.4 percent in the HPR, five percent in the GDR, 14 percent in the Republic of Cuba, 8.7 percent in the MPR, 2.6 percent in the SRR, 3.4 percent in the USSR and two percent in the CSSR in 1981. In the SRV [Socialist Republic of Vietnam], the industrial production plan was carried out and the 1980 level was somewhat exceeded, including a seven-percent increase for local and handicraft industry. In the PPR, industrial output volume decreased 13 percent.

The bulk of the increment in industrial output in CEMA member-nations was achieved through increased labor productivity.

Agricultural output production in 1981 remained, on the whole, at the 1980 level. Gross agricultural output increased as compared with the 1980 level in the PRB, SRV, GDR, Republic of Cuba, MPR and PPR. In the HPR, agricultural production remained at the 1980 level and in the SRR, USSR and CSSR it decreased somewhat.

Steps to implement the tasks set by the party congresses on further raising the standards of living of the people and improving their well-being were fully carried out on a base of developing the economy. Real per-capita incomes for CEMA member-nations as a whole increased by approximately three percent in 1981 as compared with 1980. This past year, 2.8 million apartments were built in CEMA member-nations.

The activity of CEMA agencies in 1981 was aimed foremost at successful implementation of the Comprehensive Program, at systematic implementation of the measures included in the long-range target cooperation programs and at carrying out steps in the "Coordinated Plan of Multilateral CEMA Member-Nation Integration Measures."

It was noted at the 35th Council Session meeting that the resolutions of the 26th CPSU Congress and the congresses of the fraternal communist and worker parties which were held in 1979-1981 confirmed the unanimous resolve of CEMA member-nations to continue actualizing the provisions of the "Comprehensive Program of Further Intensifying and Perfecting Cooperation and Developing Socialist Economic Integration," the long-range target and bilateral programs of cooperation for the purpose of solving vitally important problems of the national economy, intensifying social production, perfecting the structures of the national economic complexes, and intelligent use of the aggregate economic and scientific-technical potential of CEMA member-nations.

The session recognized the necessity of accelerating the joint development of machinery complexes for open-pit minerals extraction and the construction of gas pipelines, energy-saving equipment and modern means of controlling production processes.

Six agreements in a number of important branches of the economy were signed during the Session meeting. Of particular importance is the "Intergovernmental Agreement on Creating a Standardized Electronic Element Base for Radio-Electronic Devices, Means of Communications and Computer Equipment," which is aimed at meeting to the maximum the requirements of CEMA member-nations for electronics items at the highest technical level in the world through the combined, efficient use of the opportunities of these countries.

The CEMA Executive Committee did a great deal of work in 1981 leading the activity of CEMA agencies. Executive Committee meetings examined such important questions as preparing agreements aimed at implementing LTCP [long-term cooperation programs], developing proposals on expanding CEMA member-nation cooperation to more fully meet the requirements for fuel and energy resources, working out and introducing advanced equipment, reducing materials- and energy-intensiveness, improving the quality and competitiveness of specialized output, the extensive development of cooperation based on unitized subassemblies and parts, and further developing direct ties among organizations participating in the cooperation.

In the area of planning activity, CEMA member-nation cooperation was concentrated on completing work on coordinating 1981-1985 national economic plans and working out the "1981-1985 Coordinated Plan of Multilateral Integration Measures of CEMA Member-Nations," which were organized by the CEMA Committee for Cooperation in the Area of Planning Activity.

One new feature of this plan coordination was foremost the fact that it was linked to the start of implementation of the long-term target cooperation programs adopted by CEMA countries for the key branches of material production. This enabled the CEMA Committee for Cooperation in the Area of Planning Activity and the central planning agencies of CEMA countries to choose the most important problems of cooperation for resolution in the current five-year period with consideration of the more long-range perspective, thus ensuring a long-range approach by CEMA member-nations in solving the most important national economic problems.

The agreements achieved among CEMA-member party and state leaders in the Crimea on the increasingly deep development of production cooperation and specialization

on a basis of the extensive use of the achievements of scientific and technical progress have been implemented in the course of plan coordination. This has also been facilitated by the signing of bilateral long-term production specialization and cooperation programs between the USSR and European CEMA member-nations. There are currently about 120 multilateral and upwards of a thousand bilateral agreements on production specialization and cooperation which have been concluded between the USSR and other CEMA member-nations in the implementation stage.

Implementation has begun of the program adopted by the CEMA Committee for Cooperation in the Area of Planning Activity on multilateral cooperation in the comprehensive and more intensive involvement in economic circulation of additional new sources of energy -- solar, wind, geothermal and others. Over the next three to four years, we intend to carry out a complex of measures on the economically substantiated expansion of the use of renewable energy sources and additional synthetic hydrocarbon raw material resources.

The 35th CEMA Session meeting approved the "1981-1985 Coordinated Plan of CEMA Member-Nation Multilateral Integration Measures." As compared with the preceding plan, this Coordinated Plan is supplemented with a new section anticipating (standardized) normative-technical back-up for the measures in all the remaining sections of the plan. IIB [International Investment Bank] participation in providing credit for individual plan measures is reflected.

The basic section of the 1981-1985 Coordinated Plan is devoted to joint construction of projects and additional capacities in the raw-material and fuel-energy branches. Among them are the Khmel'nitskaya AES in the USSR, construction and operation of the electric power transmission line from Khmel'nitskaya AES to Rzeszow (PPR), installation of a feed yeast plant in Mozyr' (USSR).

The plan reflects multilateral integration measures aimed at accelerating development of the economies of Vietnam, Cuba and Mongolia. These include the creation of capacities to produce nickel, geological surveying work, commercial processing of citrus, developing sugar production in Cuba, utilizing virgin land in Mongolia, and so on.

About 3,000 scientific and technical organizations are currently participating in multilateral CEMA member-nation scientific and technical cooperation. In 1981, about 1,200 topics were developed through joint efforts. The number of projects being completed each year has risen to 2,000; each year, 200-300 new or improved machinery, apparatus and equipment designs are created, 100-150 technological processes are developed or improved, and 100-200 new types of materials and compounds are developed.

In 1981, particular attention was paid by the CEMA Committee for Scientific and Technical Cooperation to specific steps to develop and organize the specialized, cooperative production of industrial robots on a base of standardized subassemblies and parts and the extensive use of microprocessor equipment in the national economy.

The committee also reviewed and refined the CEMA Member-Nation Scientific and Technical Program for Solving Fuel and Energy Problems in 1981-1985 and beyond.



The development of such interbranch forecasts up to 2000 as "Prospects for Developing the Scientific-Technical Potential of CEMA Member-Nations," "Recycling Systems and Processes" and others continued.

Cooperation in solving ecological problems continued. An international "1981 Low-Waste and Waste-Free Technologies" conference at which experience was exchanged and the basic directions in which the CEMA member-nations concerned are cooperating were outlined was held within the framework of the "Overall Expanded CEMA Member-Nation Cooperation Program for 1981-1985 in the Area of Environmental Protection and the Associated Efficient Use of Natural Resources."

An analysis of cooperation in training and improving the skills of scientific and technical personnel during 1976-1980 showed that CEMA member-nations exchanged 4,398 graduate students and 4,760 students for on-the-job training this past five-year plan. As a result of this exchange, 3,744 candidate and 129 doctorate dissertations were defended. Two collections of works on training and improving the skills of scientists were published.

In CEMA member-nation cooperation in the area of material-technical supply, primary attention was focused on coordinating work to improve the use of material resources. Thus, implementation of the agreement signed in 1981 on cooperation to reduce fuel losses during storage and transport will permit the more effective use of petroleum products, the better collection and reclamation of used oil, lower heat-value losses when storing coal, and lower losses of solid fuel during loading, unloading and shipment.

Proposals on cooperation in developing the production of nonmetallic pipe and replacing steel pipe with it were also worked out within the framework of the CEMA Committee for Cooperation in the Area of Material-Technical Supply. Implementation of these proposals will lower expenditures of steel pipe and improve the pipe production and consumption structure in the CEMA member-nation national economy.

Much attention has been paid to developing equipment for the collection, transport, processing and reworking of recovered raw material, and in particular, of scrap and waste ferrous metals, recovered polymer materials and household solid waste.

We have successfully continued cooperation in the area of energy, fuel and raw material. These questions occupied an important place in the activity of the CEMA Standing Commission for Cooperation in the Field of Geology. In 1981, the commission analyzed the results of geological surveying work during 1976-1980: an increment in reserves of petroleum, gas, coal, iron, copper, lead, zinc, tungsten and tin was noted. The volume of surveying and prospecting work increased by 25 percent as compared with the preceding five-year period.

Results of the activity of the International Geological Expedition to the MPR during 1976-1981 were summed up. The expedition revealed and evaluated upwards of 50 tungsten, molybdenum, complex-ore, fluorite and nonferrous-rock outcroppings.

With a view towards implementing the LTCP on energy, fuel and raw material, an agreement was signed on scientific and technical cooperation on the problems of

petroleum-gas geology and geophysics. Fuel-oil shale reserves in the countries concerned were evaluated and scientific research was done on the status of the study and evaluation of sources of geothermal energy and the geologic-economic prerequisites for enlisting them in the fuel-energy balance.

In the area of electric power engineering, steps were taken to implement the "General Agreement on Concerned CEMA Member-Nation Cooperation in Building the Khmel'nitskaya Nuclear Power Plant in the USSR" and the "Agreement on Cooperation in Building and Operating the 750-kV Electric Power Transmission Line from the Khmel'nitskaya AES (USSR) to Rzeszow (PPX) and 'Rzeszow' Substation."

The results of parallel work by the Unified Power Systems (UPS) and the USSR Unified Power System in connection with the start-up of the 750-kV Vinnitsa-Zapadnoukrainsiaya (USSR) - Al'bertirsha (HPR) electric power transmission line have been reviewed. The installation and start-up of this line created conditions for the parallel operation of the UPS and the USSR Unified Power System. The installed capacity of these associations has reached about 300,000 MW, of which approximately 140,000 MW is coordinated by the Central Dispatch Administration.

Considerable attention has been paid to cooperation in the area of studying and introducing methods of using fuel and energy most efficiently and economically, of involving local fuel resources and hydroelectric power more fully in the fuel-energy balance of the countries. Programs have been developed for improving the operation of existing electric power plants with large, automated units, for modernizing the basic power equipment and thermal flow patterns of existing electric power plants, for introducing optimal organizational structures for the management and operation of thermal electric power plants.

Cooperation in the area of using nuclear power for peaceful purposes yielded tangible results. In 1981, the total installed capacity of CEMA member-nation nuclear power plants reached 20,000 MW.

There was active scientific research and experimental-design work on implementing the agreement on mastering and improving power units with VVER-1000 [water-cooled power reactors] (1,000-MW power). In 1981, the SFRJ [Socialist Federated Republic of Yugoslavia] joined the agreement. CEMA member-nation specialists have done a great deal of calculation and experimental work on physics and thermohydraulics, researching dynamic and emergency operating routines, and developing methods and means of ensuring safety in the operation of VVER-type reactors.

Within the framework of the "Interatominstrument" international economic association, the "Agreement on Multilateral Specialization in the Production of Nuclear Devices and Installations" was extended through 1981-1985. The share of specialized items in overall deliveries this five-year period will average 45 percent.

Positive results were also achieved as a result of the agreement on multilateral international specialization and cooperation in the production of isotope products. Specialized isotope product delivery volume reached 2.5 million rubles, 41 percent of all deliveries.



Within the framework of carrying out the measures of the LTCP, multilateral cooperation in the area of coal industry was concentrated on determining technical resolutions for detecting and methods of working new deposits.

In the area of scientific-technical cooperation based on LTCP measures, four agreements were signed: creating an automated planning system for coal mines; improving existing and developing effective new technologies and equipment for operating deep (about 1,500-meter) coal mines under difficult mining and geological conditions; developing and introducing progressive technological resolutions and highly productive mining and transport equipment for the construction and operation of promising comprehensively mechanized coal reserves; developing highly effective technology, modern equipment and automated control devices for enrichment plants using low-flow and few-operation technology and sections with a production capacity of 1,000 tons/hour angular reference.

Cooperation continued in 1981 to resolve problems in the area of developing ore-mining machinebuilding on the basis of a four-party agreement (HPR, PPR, USSR and CSSR) involving other concerned countries as well. The requirements of the countries for ore-mining equipment which were previously worked out were refined. A draft agreement developed by the USSR delegation on the cooperative production of ore-mining machinery directly among native machinebuilding enterprises in the countries concerned was reviewed.

The CEMA Standing Commission for Cooperation in the Area of Petroleum and Gas Industry approved proposals on expanding cooperation to more fully meet the requirements of CEMA member-nations for petroleum, gas and petroleum products up to 1990 and beyond, including questions of supplying petroleum and gas industry with modern, highly productive equipment.

With a view towards implementing LTCP measures on producing equipment and assembly-component installations for petroleum and gas industry, the commission approved a list of the most important selected products list of equipment for deep drilling, petroleum and gas extraction, and pipeline construction and sent it on to the CEMA Standing Commission for Cooperation in the Area of Machinebuilding to set up cooperation to specialize and consolidate their production.

The commission reviewed information on progress in implementing the General Agreement on Cooperation With a View Towards Significantly Increasing the Thoroughness of Oil Refining by introducing improved technology based on specialization and cooperation in the production of facilities and equipment for oil-refining recovery processes. A draft agreement on scientific-technical cooperation in the area of developing technology and technical documentation for processes to thoroughly refine petroleum is basically complete.

In the area of ferrous metallurgy, cooperation continued on resolving technical and organizational questions connected with installation of the Krivoy-Rog Ore Enrichment Combine in the USSR by CEMA member-nations concerned; this plant will be mining and enriching oxidized ferrous quartzites.

A cooperation program for the CEMA member-nations concerned in developing and mastering the most efficient and economical processes for enriching oxidized iron ores, manganese ores and other weakly-magnetic materials, as well as for developing the needed equipment, has been approved.

The "Basic Directions of Further Intensifying and Perfecting CEMA Member-Nation Cooperation in the Area of Ferrous Metallurgy" in the 1980's have been worked out and approved. They anticipate the continued development and deepening of cooperation to more fully meet the requirements of the countries for basic raw materials, metallurgical coke, and finished steel products in the needed assortment and of the needed quality.

Implementation of the provisions of the Comprehensive Program in the Area of Nonferrous Metallurgy has facilitated further development of the production of nonferrous and rare metals in CEMA member-nations.

In 1981, we continued carrying out such very important LTCP measures as improving existing and creating new and highly efficient processes for processing copper raw material with a view towards its comprehensive use and protecting the environment; determining the most efficient technical resolutions for the comprehensive processing of certain types of nonbauxite raw material into aluminum; the economical and efficient use of fuel and energy in nonferrous metallurgy; organizing the specialized production of materials for radio-engineering and electronics industry.

CEMA member-nation and SFRJ cooperation in using free capacities to produce semifinished products using nonferrous metals and their alloys, semiconductor materials, very pure metals and metals with special physical properties was developed successfully.

Much attention was paid to providing nonferrous metallurgy with modern, highly productive equipment, automating production processes and exchanging leading experience among CEMA member-nations, in particular, on increasing the efficiency of operation of dust-collecting installations at metallurgical enterprises and on improving the collection and reprocessing of nonferrous metal scrap and waste and exchanging information within the framework of the international "Tsvetmet-inform" system.

A number of questions were reviewed on developing nonferrous metallurgy in the SRV, Republic of Cuba and MPR.

Cooperation in the area of chemical industry, as in years past, was aimed at implementing measures of the Comprehensive Program and LTCP as they relate to chemical, pulp-paper and microbiological industry.

Positive results were achieved in implementing the general agreement and the bilateral agreements concluded to develop it by specializing and consolidating the production of energy-intensive and less energy-intensive chemical output and build through joint efforts the Ust'-Ilimskiy Cellulose Plant and the Mozyr' Feed Yeast Production Plant.

Protocols were signed in 1981 on extending and supplementing agreements on multilateral international production specialization and cooperation for cigarette paper, tire products, synthetic dyes and semifinished products for them, and auxiliary substances for textile, leather and pulp-paper industry.

The CEMA Standing Commission for Cooperation in the Area of Chemical Industry reviewed the question of possible CEMA member-nation cooperation with the MPR in utilizing the Khubsugul'skiy phosphorite deposit.

Definite successes have been achieved in the field of agriculture in developing cooperation in breeding and in the practical use of the results obtained. The CEMA Standing Commission on Cooperation in the Area of Agriculture reviewed information on the results of tests of agricultural varieties and hybrids in 1980. Of the 369 types tested, the 20 best in terms of yield and other criteria will be acclimatized in CEMA member-nations. Reciprocal deliveries of seed for the basic agricultural crops were as follows: grains -- 124 percent, soybeans -- 126.7 percent, cereals -- 100.0 percent, potatoes -- 103.2 percent and plantings -- 146.6 percent. Some 62 bulls, 4,702 ewes, 140 goats and 21,600 doses of semen from valuable producers were supplied in accordance with the obligations of the parties under purebred livestock gene-stock agreements.

Proposals were worked out on cooperation to reduce losses and increase the quality of grain in all stages of processing, drying and storage, as well as on the more extensive use of leading experience and progressive technologies for cultivating grains and legumes with a view towards increasing yields.

The results of a decade of activity by the International Poultry Test-Monitoring Station were approved. The appropriateness of expanding its activity along the line of scientific-technical cooperation and coordinating poultry breeding was acknowledged. A Provision on CEMA Member-Nation Cooperation in the Field of International Testing of Chemical and Biological Means of Plant Protection was approved.

The results of scientific-technical cooperation in the field of agriculture during 1976-1980 were summed up. During that period, 419 scientific projects were completed whose results are to be introduced into agricultural production by the countries concerned.

In the area of food industry, CEMA member-nations, in carrying out the measures in the Comprehensive Program and the LTCP, focused their attention on solving scientific-technical problems and questions of the efficient use of raw and other materials.

The CEMA Standing Commission for Cooperation in the Area of Food Industry prepared measures on the comprehensive resolution of problems of improving the nutritional and taste qualities of food products. They encompass the exchange of leading production experience in the area of improving food production technology, improving the nutritional value of existing food products and creating new, high-quality products, creating and organizing the specialized production of machinery and equipment system complexes for the efficient processing of food raw material, means of automating raw-material and finished-product quality evaluation, progressive packing and packaging materials, as well as the comprehensive development of refrigeration.

Proposals were prepared on the joint development, creation and organization of specialized and cooperative production based on unitized subassemblies and parts for modern machinery and equipment systems for the thorough processing of meat, milk, oilseed, sugar beets, fruit and vegetables.

In the area of machinebuilding, implementation of LTCP measures comprised the basic content of CEMA member-nation cooperation and the activity of corresponding Council agencies in 1981.



The CEMA Standing Commission for Cooperation in the Area of Machinebuilding worked out draft proposals on specific steps to jointly develop and set up the specialized, cooperative production of progressive machinery and equipment along the following priority lines: equipment for open-pit working mineral deposits and building large pipelines; machinery and equipment ensuring the efficient use and economical expenditure of fuel and energy; machinery and equipment systems, including automated manipulators with preset control, which reduce the use of manual labor in loading and unloading work, transport-warehousing, auxiliary and other labor-intensive operations; highly productive precision metalworking and foundry equipment; multipurpose series of progressive general-purpose machinebuilding items; machine systems for the comprehensive mechanization of agriculture and also for the efficient processing of agricultural foodstuffs raw material.

Implementation of scientific research and planning-design programs outlined in agreements concluded under LTCP measures continued.

The commission worked out methods and criteria, by type and group of specialized machinebuilding output for reciprocal delivery, for systematically analyzing the technical level and quality and also for working out steps to improve technical-economic parameters and quality. Commission sections were instructed to use these methods in preparing agreements on multilateral production specialization and cooperation for basic and specialized output in order to systematically compare the technical level and quality of items with the best world analogs, to work out and include in the agreements steps on further improving the technical-economic indicators of reciprocal-delivery output.

In the area of radio-engineering and electronics industry, with a view towards better meeting the requirements of CEMA member-nations for modern electronic items, and especially microelectronics equipment, the 35th CEMA Session meeting signed a General Agreement on Multilateral Cooperation to Develop a Unified Standardized Base for Electronic Items, Special Technological Equipment, Semiconductor and Special Materials for Their Production. The agreement is already being implemented.

An agreement on scientific-technical cooperation in developing new technological processes and equipment for color television sets has been signed within the framework of implementing the consumer goods LTCP measures.

In the area of light industry, a number of agreements were signed, including one on scientific-technical cooperation on developing high-quality artificial fur and one on cooperation in expanding the production and changing the assortment of selected types of furniture.

Methods principles were approved for working out CEMA member-nation proposals on specializing and consolidating the production of finished and semifinished items in light industry, as well as the basic directions of cooperation among the countries concerned in developing and deepening international production specialization and cooperation in light, wood-processing and the printing and publishing industry.

In the area of transport ties, work was done to refine data on coordinating plans for developing CEMA member-nation transport in 1981-1985 in accord with

long-range and other agreements which have been concluded and steps to ensure the shipment of freight and passengers among CEMA member-nations were refined. Creation of a system of international agreements ensuring fulfillment of the LTCP for developing CEMA member-nation transport ties was completed. Agreements were signed on ensuring shipments of especially heavy and especially large equipment for nuclear power engineering on international transport routes and on developing an efficient system to direct hauled and return traffic on the Danube.

Much attention was paid to implementing LTCP measures aimed at increasing the throughput of international rail lines, border rail crossings, and improving the transport process in maritime and river transport. Cooperation in the area of maritime and motor transport was aimed at creating conditions for improving liquid fuel and lubricant economy.

The Scientific-Technical Council has begun working on the problem of "Scientific Principles of the Optimum Functioning and Interaction of CEMA Member-Nation Transport Systems With the Goal of Providing for Maximum International Shipment."

In the area of civil aviation, the countries concerned signed a "General Agreement on Cooperation in Building a Plant in the USSR to Repair Civil Aviation Aircraft for Long- and Medium-Range Routes." Progress was reviewed in implementing general agreements on cooperation to create a Center for the Joint Training of Pilot, Servicing and Dispatch Personnel for Civil Aviation, on setting up an International Scientific-Experimental Air Traffic Control Center, on creating and putting into operation a interlinked complex of automated reservations and ticket sales systems for international air lines.

In the area of construction, measures were worked out for saving fuel and energy and using them efficiently in cement and brick industry. Their introduction in CEMA member-nations will enable us to save about four million tons of conventional fuel in 1985 as compared with 1975 and about 5.5 million tons in 1990, with consideration of the planned production volume growth.

We continued carrying out the Long-Term Program of Production Specialization and Cooperation for Lightweight Components for Industrial, Warehouse, Agricultural and Public Buildings. International cooperation in this area facilitated the development in CEMA member-nations of a powerful base for producing lightweight metal components and expanding reciprocal deliveries among the countries concerned.

Proposals were worked out on the basic directions of cooperation among the CEMA member-nations concerned in developing and deepening production specialization for building materials and items made of ceramics and glass.

Work was done to design standard plants of different sizes to produce mixed feed, meat-bone and blood meal, and also plants to pelletize and granulate full-value feeds. Some 18 draft plans for standard plants of different sizes were developed.

Activity in the area of standardization was aimed at strengthening its ties with measures on cooperation in material production, raising the level of norms and specifications in CEMA standards, and reducing the time involved in developing standards.



Within the framework of the System of Normative Documentation on CEMA Activity in the Area of Standardization, Metrology and Industrial Output Quality, six basic organizational-methods documents defining procedures for developing CEMA standards and work programs establishing rules for structuring, presenting, formulating, verifying, reviewing and making changes in or rescinding CEMA standards were approved.

The CEMA Standing Commission for Cooperation in the Area of Standardization approved 580 CEMA standards on comprehensive five-year plan topics, which was more than 80 percent of the total number of CEMA standards approved in 1981.

Council agencies and CEMA member-nation international economic organizations embarked on fulfillment of the assignments of the "Normative-Technical Back-Up of Measures" section of the Coordinated Plan of CEMA Member-Nation Multilateral Integration Measures in 1981-1985. Work programs were developed and adopted in 1981 for 34 comprehensive topics. Some 169 CEMA standards were approved on subject matter stemming from plan assignments.

With a view towards promptly revealing the standardization necessary for multilateral agreements concluded on LTCP measures, for drafts being prepared and the associated actualization of plans for developing CEMA standards, the CEMA Institute for Standardization analyzed the materials from 26 agreements concluded and 18 protocols on extending and supplementing agreements previously concluded, as well as 213 draft agreements and protocols, more than half of which are connected with implementing LTCP measures. Some 1,402 CEMA draft standards were subjected to expert analysis aimed at ensuring a high technical level in the CEMA standards being developed in 1981.

In the area of statistics, cooperation was concentrated on ensuring the more comprehensive statistical illumination and study of various aspects and processes of implementing the Comprehensive program and standardizing indicators of the methodology for calculating them in economic and scientific-technical cooperation.

A routine international comparison of the basic cost indicators of CEMA member-nation and SFRJ national economic development was completed. An analysis of the process of approximating and equalizing the levels of member-nation economic development during 1971-1980 was prepared.

Needed steps to set up statistical record-keeping by the CEMA member-nations concerned were carried out on the basis of proposals developed by the CEMA Standing Commission for Cooperation in the Area of Statistics on a unified system of tracking progress in carrying out measures included in the SPMIM [not further identified] in 1981-1985.

In the area of public health, an Analysis of the Status of Cooperation on Developing and Producing Medical Instruments and Medicines was prepared. Based on this, lists of the most important equipment and medicines and the demand for them up to 1990 were refined.

Measures on preventing cardiovascular diseases, influenza, oncological diseases and on the most efficient forms of public health organization and management were successfully developed. Primary attention was focused on introducing the results of practical public health work done by CEMA member-nations.

CEMA member-nation foreign trade continued its successful development. Foreign trade turnover for CEMA member-nations as a whole in 1981 was 245.3 billion rubles (including 123.5 billion rubles in exports and 121.8 billion rubles in imports), a 9.7-percent increase as compared with the 1980 level.

Reciprocal trade turnover increased 11.4 percent in 1981 as compared with the 1980 level. Reciprocal deliveries provided the bulk of the import requirements of a majority of the CEMA member-nations for the most important types of fuel, raw material, metals, machinery, equipment and consumer goods.

CEMA member-nation international foreign-exchange, financial and credit relations continued to improve.

Overall MBES [International Bank for Economic Cooperation] operations comprised 208.4 billion transfer rubles, including 140.2 billion transfer rubles in reciprocal calculations made by bank member-nations through the bank, 114.1 percent of 1980. The amount of credit, in transfer rubles, granted by the MBES to authorized CEMA-country banks reached 11.7 billion transfer rubles, or 21 percent more than in 1980.

In 1981, the IIB accepted seven projects for a total of 227 million transfer rubles in credit.

In 1981, CEMA member-nations continued their cooperation with other socialist countries, with the developing states, and also with the developed capitalist countries.

Under an agreement between the SEMA and the SFRY government, Yugoslavia participated actively in the work of Council agencies. The SFRY is a participant in many agreements on multilateral production specialization and cooperation and scientific-technical cooperation, including that associated with implementing LTCP's. It cooperates in 23 areas within the CEMA framework.

Successful development of economic and scientific-technical cooperation between CEMA member-nations and Finland continued. Nine agreements on economic and scientific-technical cooperation were signed between authorized agencies, organizations and companies of CEMA member-nations and the Republic of Finland in 1981. Trade turnover between CEMA member-nations and Finland was 5.4 billion rubles in 1981, a 25.6-percent increase as compared with the 1980 level.

In 1981, CEMA member-nations broadened and deepened mutually advantageous cooperation with the developing countries. This past year, assistance was rendered to 92 developing countries of Asia, Africa and Latin America.

Some 137 projects were built in developing countries during 1981 with the technical assistance of CEMA member-nations. A total of 3,294 such projects have been built with CEMA member-nation assistance.

The CEMA Scholarship Fund has been successful, enabling about 3,500 citizens of developing countries to study at higher and secondary special academic institutions.

Cooperation agreements between the Council for Economic Mutual Assistance and Iraq and between CEMA and the United States of Mexico are being implemented.

In 1981, CEMA maintained various forms of regular contacts with more than 60 international economic and scientific-technical organizations, including the UN, the bulk of its organizations, specialized institutions and MAGATE [International Atomic Energy Agency (IAEA)].

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## USSR-CEMA TRADE

### DEVELOPMENT OF CEMA PRODUCTION SPECIALIZATION AND COOPERATION STATISTICS

Moscow EKONOMICHESKOYE SOTRUDNICHESTVO STRAN-CHLENOV SEV in Russian No 6, Jun 82  
pp 56-58

[Article by Zdenek Rakhach, CEMA Secretariat, under the heading "Statistical Commentary": "Pressing Problems of the Statistical Observation of the Process of CEMA Member-Nation International Production Specialization and Cooperation"]

[Text] Socialist international production specialization and cooperation is acquiring increasing importance as the economic development of CEMA member-nations intensifies. They are aimed at meeting the requirements of CEMA member-nations for highly productive machinery and equipment systems to increase production concentration and raise the technical level of the output being released. Implementation of the Comprehensive Program, the LTCP's and bilateral long-range programs will facilitate transforming the next two five-year plans into a period of intensive production and scientific-technical cooperation by the countries of socialism.

The rates of growth in exports of specialized CEMA member-nation output produced within the framework of agreements on specialization and cooperation in machinebuilding, radio engineering and electronics industry have significantly exceeded the rates of growth in all exports by these branches. The volume of exports of specialized machinebuilding output in reciprocal deliveries by CEMA member-nations has risen approximately twice as fast as overall exports of machinery and equipment. In 1980, the share of specialized deliveries in total machinery and equipment exports reached 34 percent (as against 22 percent in 1975).

Deepening the international socialist division of labor demands constant improvement in the mechanism of economic cooperation by CEMA member-nations. An important role in this is set aside for the development of a system of statistical indicators describing the development of production specialization and cooperation and permitting an objective judgement of the results achieved. Qualitative evaluation of the level of international CEMA member-nation production specialization and cooperation is very important in correctly choosing the directions of further development of international economic cooperation and in revealing available reserves.

In the decree adopted at the 60th CEMA Executive Committee meeting (1972), "Procedure for Observing and Recording Fulfillment of Obligations Stemming from the



Agreements Concluded on Specializing and Consolidating the Production of Specialized Output," the level of development of international production specialization and cooperation in CEMA member-nations and the SFRY [Socialist Federated Republic of Yugoslavia] is determined by the proportion of exports of specialized output in total exports of a given branch of industry.

Specialized output is that produced in accordance with agreements concluded by CEMA member-nations on production specialization and cooperation. This definition results from the necessity of ensuring that fulfillment of the above-indicated obligations is recorded and is relatively narrow. The concept of specialized output is frequently interpreted more broadly, to include output for which long-term production-trade ties exist among countries, independently of whether these ties are secured in agreements in effect. It seems appropriate to resolve the question of statistically recording that output whose production specialization under CEMA agency recommendations accepted by CEMA countries continues to retain its importance in connection with implementation of the Comprehensive Program and included in trade agreements.

At present, it is especially urgent that we study deliveries of subassemblies, parts and components as an effective form of production cooperation among CEMA countries. The cooperative production of subassemblies and parts assumes and leads to production consolidation. The development of machinebuilding on a basis of parts, subassembly and technological enterprise specialization enables us to spend an average of 1.5- to two-fold less social labor and 2.5- to three-fold less live labor than in multipurpose, multiple-parts production. International cooperation on subassemblies, parts and components is becoming an integral part of structural transformations in CEMA member-nations, a link in comprehensive work on developing modern systems of machinery, mechanisms and equipment, through joint efforts, on a basis of efficiently combining subject, parts and subassembly specialization and cooperation.

Heretofore, there has been no generally accepted, binding definition of "international production cooperation." In this connection, the Standing Commission for Cooperation in the Field of Statistics decided at the 37th meeting (1981) that the level of international CEMA member-nation cooperation on subassemblies and parts in machinebuilding is described by the proportion of exports of specialized machinebuilding subassemblies and parts in total exports of specialized machinebuilding output in CEMA member-nation reciprocal trade. In a number of instances, it was hard to define agreements (contracts) on production specialization and cooperation which contain articles on cooperative deliveries. It will be appropriate in the future to introduce a special designation for such articles.

There are also other problems in recording fulfillment of production specialization and cooperation agreements (contracts). The lack of a designation for each specialized output article in the form of a five-digit YeTNVT (Unified Commodity Foreign Trade Products List) figure leads to reporting and delivery information inaccuracies in different countries. Countries record in different units of measure. There is no information on all the approved indicators, foremost on delivery amounts in cost terms, which prevents comparative analysis.

Resolution of these and a number of other questions would doubtless improve the quality of results of observations of the CEMA member-nation production specialization and cooperation process.



The CEMA Standing Commission for Cooperation in the Field of Statistics approved at the 17th meeting (1971) a system of statistical indicators describing the level of international production specialization and cooperation in the area of machinebuilding. Governed by the Executive Committee resolution adopted at the 60th meeting (1973), the commission included other branches of industry in it as well in 1973.

The CEMA Secretariat annually prepares materials describing the achieved level of international production specialization and cooperation on the basis of reporting data sent it by CEMA countries, beginning with the machinebuilding indicators for 1973 and chemical industry indicators for 1974, based on the proportion of exports of specialized output in all branch exports in CEMA member-nation reciprocal trade.

This indicator permits only a limited analysis of the level of international specialization of CEMA member-nation foreign trade ties. Its selection resulted from objective factors existing at that time, and in particular, from the character of cooperation in this particular area and from the specific content of production specialization and cooperation agreements concluded by CEMA member-nations on both a multilateral and a bilateral basis.

In the early 1980's, a different situation has evolved. The 34th and 35th meetings of the Council for Economic Mutual Assistance Session determined the basic directions and prospects with consideration of changing conditions in the continuing shaping of deep, stable economic, scientific and technical ties among CEMA member-nations in the current decade. At present, attention is being focused on the quantitative aspects of developing international cooperation and specialization. At the same time, reliance is being placed on qualitatively new forms of this process as well:

- accelerating scientific-technical progress, creating and introducing new equipment, technology and materials, raising the technical level of reciprocal-delivery output;

- meeting the requirements of CEMA member-nations for increased reciprocal deliveries of technically advanced, specialized output, eliminating unjustified imports of machinery, equipment, subassemblies, parts, assembly components and materials from capitalist countries;

- intensifying the thoroughness of this work by interlinking research, technical developments, the creation, mastering and production of equipment, unitization and standardization, supplying spare parts, as well as organizing technical servicing;

- broadening parts and subassembly specialization and cooperation on the basis of using modular, standardized and unitized elements, and so forth.

The indicated directions of further developing cooperation in the area of international socialist production specialization and cooperation must find reflection in corresponding record-keeping for this process.

In accordance with the resolution of the 34th meeting (1979), the commission has begun working to further improve statistical observation of the international production specialization and cooperation process, paying particular attention to expanding cooperation on subassemblies and parts. To this end, corresponding proposals and remarks have been received from CEMA Secretariat branch departments

and individual country delegations to the commission. A system for collecting initial data, beginning in 1981, to observe the international specialization and cooperation process in all branches of CEMA member-nation industry has been developed on the basis of a generalization of the proposals received and outline CEMA Session resolutions (24th meeting) and Council Executive Committee measures on further developing CEMA member-nation cooperation in the area of international production cooperation and specialization.

The proposals on further improving statistical records for the CEMA member-nation international production specialization and cooperation process during 1982-1985 in the first stage of statistical observation within the framework of the existing system of indicators, while retaining the dynamic series of statistical data previously used, recommend:

1. Organizing record-keeping on exports of specialized output by the following branches of industry not previously covered by it:

- ferrous metallurgy;
- nonferrous metallurgy;
- light industry;
- building materials production.

2. Expanding the range of commodity groups for which statistical records are kept on exports of specialized output by CEMA member-nations.

3. Broadening the range of statistical indicators describing the level of CEMA member-nation international production specialization and cooperation by including new indicators such as a specialization factor for CEMA member-nation imports in reciprocal trade. This indicator represents the relationship of the share of exports of individual commodity groups by certain CEMA member-nations in total exports of these commodity groups by all CEMA member-nations to the proportion of exports of all industrial output of individual CEMA member-nations in total exports of industrial output by all CEMA member-nations.

Proposals are being discussed regarding the methodology of statistically recording exports of subassemblies, parts and components, that is, deliveries of output on a cooperative basis in trade among CEMA member-nations in the area of machinebuilding and proposals on the mutual exchange of information on the production of selected types of specialized machinebuilding output in nations of the socialist community. It seems appropriate in the initial stage to restrict statistical observation to just a small number of the most important types of specialized output in order to determine the level of production specialization for individual CEMA member-nations for a given group or subgroup of commodities being exported within the framework of agreements (contracts).

A definite methodological and organizational interlinking and agreement should be ensured between record-keeping being done within the framework of the Commission on Cooperation in the Field of Statistics and observation of CEMA member-nation fulfillment of obligations stemming from agreements (contracts) concluded by them on production specialization and cooperation which operate within the framework of Council branch commissions, as well as the system of observation and operational recording of deliveries of goods under agreements on production specialization and cooperation which was adopted by the Standing Commission for Foreign Trade.

The conditions of the new stage of CEMA member-nation cooperation necessitate a gradual shaping by appropriate CEMA agencies of a comprehensive system of statistical and branch observation of the international production cooperation and specialization process, which system would encompass:

indicators of scientific and technical cooperation, especially in the area of cooperation in scientific-technical research and development, creating joint technological and planning-design centers and scientific-production associations to develop and master specialized production, and others;

indicators for cooperative production, in which particular attention should be paid to the coordinated development of branches of CEMA member-nation industry, to the cooperative production of progressive machinery and equipment systems on a basis of standardization and unitization, to the creation of new or expansion of existing production capacities for specialized, and especially for cooperative, production facilities;

indicators of deliveries of specialized output among CEMA member-nations (this system would include the bulk of the existing system of statistical observation of international CEMA member-nation production specialization and cooperation process);

indicators describing the technical level and quality of specialized output. It is in this area, for example, that proposals are being worked out for CEMA agencies to determine the conformity of the technical level of reciprocal-delivery output to the best world analogs, as well as the quality of specialized output included in international production specialization and cooperation agreements (contracts), and others.

For individual directions enumerated above, the observation can also be ensured through one-time surveys.

The above-indicated types of record-keeping demand the development of a corresponding methodology. The CEMA Secretariat statistics department and the country delegations to the CEMA Standing Commission for Cooperation in the Field of Statistics which are concerned plan to continue studying the question of improving statistical observation of the international CEMA member-nation production specialization and cooperation process as Council agencies agree on specific measures stemming from the resolutions of the Council Session and Executive Committee.

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## USSR-CEMA TRADE

### CEMA ECONOMIC-STATISTICS INDICATORS CLASSIFIER PROPOSED

Moscow EKONOMICHESKOYE SOTRUDNICHESTVO STRAN-CHLENOV SEV in Russian No 6, Jun 82  
pp 58-59

[Article by Galina Truzhenikova, CEMA Secretariat, under the heading "Statistical Commentary": "On the Question of Creating a CEMA Member-Nation Economic-Statistical Indicators Classifier"]

[Text] One pressing task being resolved within the framework of CEMA member-nation cooperation in the area of statistics is the development of a classifier of economic-statistical indicators describing the development of the national economy and economic, scientific and technical cooperation among CEMA member-nations.

The purpose of the indicators classifier is to meet the needs of CEMA member-nation multilateral cooperation in the area of statistics, with a view towards actualizing such important tasks as comprehensive statistical analysis and macroeconomic correlations, coordinating CEMA member-nation national economic plans, observing the course of carrying out the Coordinated Plan of Multilateral Integration Measures and the international production specialization and cooperation process, solving problems of social statistics, and others.

The "System of Basic Indicators Describing the Level and Rates of Development of the CEMA Member-Nation National Economy," which was approved by the Council Executive Committee in 1965 and then supplemented and republished in improved form in 1971, is a basic methodological document. This system has been used to this day in the practical activity of CEMA agencies.

However, since the time of its second publication, the commission has worked out and approved a whole series of other important methodological documents and recommendations, among which are provisions on social statistics, environmental and new equipment (technical progress) statistics, a system of statistical indicators describing the development of CEMA member-nation economic and scientific-technical cooperation, statistical observation of progress in carrying out the Coordinated Plan of Multilateral Integration Measures and the international production specialization and cooperation process, and others.

The difficulty in using the available documents consists in the fact that, because they were developed at different times and to a certain extent are isolated from one another, they are often not interlinked. None provides a comprehensive



representation of the provision of statistics as a whole with information. The above-indicated system of basic indicators also fails to meet the demands of completeness of statistical information, fails to enable us to see the role, place and ties of each of its components, and fails to provide an unambiguous expression and interlinking of a significant portion of important statistical indicators.

The Council Secretariat statistics department prepared and published in 1980 "Basic Methodological Provisions on Statistics " which included documents and recommendations in the area of standardizing the system of statistical indicators approved by the CEMA Standing Commission for Cooperation in the Area of Statistics during its activity. But even this material taken as a whole is an aggregate of almost self-contained systems of indicators independent of one another.

Moreover, a whole series of various classifications and nomenclatures are used within the commission framework: the CEMA Member-Nation Classification of Branches of the National Economy, the CEMA Member-Nation Unified Products List of Industrial and Agricultural Output, the CEMA Member-Nation Unified Foreign Trade Commodity Products List, and others. These classifications and products lists are self-contained in nature and cover different items or different properties of the exact same items. They are, as a rule, not linked to one another, and the information contained in them is of different kinds and not comparable. The problem of providing unity in economic classifications and products lists assisting in standardizing statistical indicators and systematizing them for the current conditions, in which new data-processing technology is being used in statistics, therefore takes on special importance.

The economic-statistical indicators classifier is being developed to help solve the above problems, which also determines its importance. It is proposed that the classifier further develop the system of standardized CEMA member-nation economic-statistical indicators. Indicators relating to various branches of statistics will be interlinked, each being given a unique name and code designation. The classifications and products lists previously developed by the commission must be included in it as indicator criteria.

From the viewpoint of using the new statistical data-processing technology, the most important feature of the classifier is that the structural principle of the economic-statistical indicators and the entire system of classifying and coding in it meet the demands of a formalized description of the data, the method for this having been approved by the commission in 1977. As a consequence of this, the indicators classifier can be effectively used in the design and operation of automated state statistics systems in CEMA member-nations. It can be used for formal-logic analysis of structure and interconnections in the indicators system, for content analysis and standardizing the system of statistical documentation, for determining data-base content, and also as a basis for the inquiry language for indicators in an automated data bank.

The classifier embodies methodological principles which correspond to economic information specifics, the structure of data blocks, and the tasks and algorithms of data processing and data search when computer equipment is used.



The classifier includes:

- an overall classification scheme (list of classification headings);
- a systematized list of types of indicators ordered in sequence with the list of classification headings (pattern-positions);
- a list of (classifications and products) lists;
- the lists (classifications and products);
- an appendix in the form of a list of CEMA Standing Commission for Cooperation in the Area of Statistics documents containing statistical indicators and the methodology for calculating them.

The purpose of the list of classification headings is to ensure visibility and convenience in using the classifier. It is set up with consideration of statistical work theory and practice which has evolved. Below is a consolidated classification-headings scheme including 17 headings systematized in terms of content under five consolidated sections: social reproduction resources, productive forces development, process and results of social production, social development and improving the standard of living, and foreign economic, scientific, technical and cultural ties.

#### Consolidated Classification-Headings Scheme

- A. Social Reproduction Resources
  - 1. Population
  - 2. Labor and Personnel
  - 3. Sites, Natural Resources, the Environment
  - 4. National Wealth
- B. Productive Forces Development
  - 11. Scientific-Technical Progress
  - 12. Capital Investments
  - 13. Efficiency
- C. Process and Results of Social Production
  - 21. Expenditures and Net Cost
  - 22. Amount of Activity in the Sphere of Material Production
  - 23. Amount of Activity in the Nonproduction Sphere
  - 24. National Income
  - 25. Finances
- D. Social Development and Improving the Standard of Living
  - 31. Standard of Living
  - 32. Social Development
- E. Foreign Economic, Scientific, Technical and Cultural Ties
  - 41. Foreign Economic Ties
  - 42. Foreign Scientific-Technical Ties
  - 43. Foreign Cultural Ties

The consolidated classification-headings scheme is detailed in expanded form, in subheadings within each classification heading. For example, heading 1, "Population," includes the following subheadings: natural population movement (summary descriptions of population reproduction, birth rate, mortality, lifespan, marriages and divorces), family, population migration, quantitative descriptions of people, as well as population size and composition.

The classification headings and subheadings are assigned codes to facilitate use of the list of classification headings. They are not used to code specific indicators.

The subheadings include pattern-positions (types of indicators) in the last stages of division, in each branch of the classification headings list. Thus, subheading 1.1, "Population Size and Composition," includes the following pattern-positions:

- 1001 Population Present (as of this date)
  - 100 Sex
  - 101 Age
  - 753 Education
- 1002 Permanent Population (as of this date)
  - 100 Sex
  - 101 Age
  - 102 Nationality
  - 103 Language
  - 104 Social Group
  - 105 Marital Status
  - 106 Education

As is evident from the above example, each pattern-position will be represented in the classifier in the form of a code and generalized designation of type of indicator and set of designations and codes of the criteria under which indicators of a given type can be classified.

Questions of delineating the lists are resolved in close connection with the choice of pattern-positions. The basic criterion of the appropriateness of delineating a list is the possibility of using it to group indicators, as well as to reveal the algorithmic interconnections and comparability of indicators described by various patterns.

The list of lists for the indicators classifier will include all the classifications and products lists in use in commission practical activity, thus linking them in a unified system.

Different versions of classification code structure for a specific indicator are possible using the classifier. One might be a variant including in the code an indicator of systems codes of lists comprising the pattern.

For example, with the pattern-position

- 103 Number of Women (as of this date)
  - (1) 71 Settlement Category
  - (2) 12 Age
  - (3) 18 Marital Status
  - (4) 20 Number of Live Births
  - (5) 21 Number of Children Living,

the classification code for the indicator "Number of Women Ages 25-29 Living in Rural Areas, Divorced, With Two Children" could be written as follows:

103. 71 : 2. 12 : 21. 18 : 3. 21 : 2.

Only the first steps, although very important ones, have been taken on the path of creating the classifier -- the CEMA Standing Commission for Cooperation in the Area of Statistics has worked out and approved (38th meeting, November 1981) methodological principles for structuring the classifier and an overall classification scheme (list of classification headings) for it.

Much work lies ahead. The main developers of the classifiers -- the USSR delegation to the commission and the Council Secretariat statistics department -- are faced with carefully analyzing the system of statistical data (systems of indicators, classifications and products lists, statistical census programs, balance schemes and others) for the purpose of determining indicators, classifications and products lists subject to inclusion in the classifier. Then, on the basis of this analysis, we can embark on the direct development of the classifier -- delineating types of indicators, shaping pattern-positions, determining their structures, standardizing the designations of types of indicators for the purpose of representing their economic meaning concisely and accurately, shaping the system of lists, and others.

We plan to complete work on development of the indicators classifier in 1984.

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## USSR-CEMA TRADE

### CEMA ECONOMIC AND TECHNICAL COOPERATION WITH DEVELOPING AFRICAN STATES

Moscow EKONOMICHESKOYE SOTRUDNICHESTVO STRAN-CHLENOV SEV in Russian No 6, Jun 82  
pp 62-65

[Article by Aleksandr Aleshkin, CEMA Secretariat, under the heading "CEMA Member-Nation Economic Ties With Other Countries": "CEMA Member-Nation Economic and Technical Cooperation With the Developing States of Africa"]

[Text] CEMA member-nation economic and technical cooperation with the developing countries of Africa is an important link in their foreign economic ties, one of the directions of participation in the international division of labor.

This cooperation is occurring in the areas of foreign trade, economic and technical assistance and training national personnel. Cooperation with the indicated groups of states is based on the principles of mutual advantage, equal rights, respect for sovereignty and noninterference in the internal affairs of each other. The states of the socialist community are acting resolutely to eliminate from world economic relations the discrimination and inequality born of colonialist and neocolonialist policy and, by so doing, to establish a new and just international economic order.

CEMA member-nations have repeatedly affirmed their resolve to facilitate the successful implementation of socioeconomic transformations in the developing countries of Africa. In particular, the Comprehensive Program of Socialist Economic Integration states that CEMA member-nations will attach particular importance to "further expanding trade, economic and scientific-technical cooperation with developing countries."

The 34th CEMA Session meeting (June 1980) reaffirmed solidarity with the legitimate striving of the developing states to achieve full economic independence, exercising the right of each people to dispose of its national natural wealth in the interests of the flowering of its own country, eliminating exploitation on the part of the imperialist monopolies, as well as ridding themselves of inequality and oppression of some states by others. The 35th CEMA Session meeting (July 1981) noted that CEMA member-nation economic ties, including multilateral ties, with Angola, Mozambique, Ethiopia and other developing states are being strengthened.

In a joint declaration at the 3rd UNIDO General Conference (India, 1980) on the strategy of industrializing the developing countries, international cooperation



and the basic directions of UNIDO in the 1980's, socialist countries supported the task advanced in the Lima declaration and that organization's Program of Action of creating in the developing countries a modern, multibranch industry producing not only consumer goods, but also means of production.

The assistance being rendered by CEMA member-nations facilitates primarily the creation and strengthening of the state sector of the economy in developing countries. This helps them resolve important social tasks, accelerate growth rates and strengthen economic independence. In the 1970's, mutually advantageous CEMA member-nation relations with the independent states of Africa took on significant scope.

At present, countries of the socialist community cooperate economically and technically with 43 African states.

In recent years, economic relations between countries of the socialist community and a number of the developing states of Africa have been organized and regulated by full-time bilateral intergovernmental commissions for economic and scientific-technical cooperation. These commissions analyze the situation evolving in the course of this cooperation, work out prospects for it and determine steps to stimulate trade exchange, as well as production and other cooperation and scientific-technical ties.

As the traditional form of interstate economic ties, foreign trade occupies an important place in CEMA member-nation cooperation with the young African states. As distinct from the imperialist powers, which use foreign trade as a tool for suppressing former colonies in their own spheres of influence and strive to preserve their dependent status in the world capitalist economy, CEMA member-nations structure their relations with them on entirely different principles.

In 1980, reciprocal foreign trade turnover with these groups of countries had increased approximately 3.7-fold as compared with the 1970 level, given identical growth in import and export volumes. The main trading partners of CEMA member-nations on the African continent are Algeria, Angola, Ghana, Guinea, Libya, Morocco, Nigeria, Tunisia and Ethiopia.

Goods designated for production, and especially complete sets of equipment, purchases of which enable African countries to lessen to an extent their dependence on the world capitalist market for machinery and equipment, predominate in CEMA member-nation exports. Goods produced by the national enterprises of the countries of Africa, including those built with the help of CEMA member-nations, occupy a significant share of imports by countries of the socialist community.

Thanks to the successful development of trade ties with countries of the socialist community, the developing states of Africa have been offered new markets for marketing not only traditional exports, but also goods from their newly created national industry, creating additional incentives to develop industrialization and use the achievements of the scientific and technical revolution.

The fact that CEMA member-nations are trading on the basis of state foreign trade monopolies and conclude long-term trade agreements with African states is a reliable guarantee of the stability and steadiness of that trade.

These agreements reflect the long-term interest of the parties in improving the structure of reciprocal deliveries by increasing the share of those goods for which there is or will in the future be an increased demand.

This circumstance is taken into account during the long-range planning of foreign economic ties of countries of the socialist community with the developing states of Africa. Thus, the Soviet Union has signed a long-term agreement with Guinea on deliveries of bauxites from the national bauxite-mining complex in Kindea. Hungary has concluded a long-term agreement with Libya on petroleum deliveries. Czechoslovakia is implementing a long-term agreement with Libya on purchasing petroleum through deliveries of its own exports.

The foreign-trade operations of CEMA member-nations are carried out directly by cost-accounting organizations which make deals with both private and state organizations in developing countries, some of which have created mixed interstate companies engaged in the sale of goods from socialist countries. Such companies are in operation, for example, in Ethiopia, Nigeria and Morocco.

When rendering the developing states of Africa economic and technical assistance, CEMA member-nations pay particular attention to helping them create the energy and industrial base in these countries. These branches account for more than 70 percent of all economic assistance by countries of the socialist community.

The economic and technical cooperation of CEMA member-nations with developing countries is generally effected on the basis of intergovernmental agreements on economic and scientific-technical cooperation. Such agreements are an example of a comprehensive, mutually advantageous approach to developing economic relations among these particular groups of states. It is noteworthy that these relations are increasingly being built on a long-term basis.

In particular, a Program of Soviet-Angolan Economic and Technical Cooperation and Trade for 1981-1985 and up to 1990 was signed in January 1982. Comrade Lucio Lara, MPLA Central Committee Secretary and Politburo Member (Labor Party), evaluated it as a new instrument of cooperation between the USSR and Angola, one which will strengthen bilateral ties in various areas, help broaden the exchange of cadres and develop friendly relations on a basis of mutual respect and observance of the interests of both parties.

Economic trade ties are being effected on the basis of long-term intergovernmental agreements between Hungary and Nigeria; the GDR and Algeria, Libya and Nigeria; Romania and Algeria, Angola, Libya and Mozambique; the USSR and Algeria, Libya and Morocco; Czechoslovakia and Nigeria.

Intergovernmental agreements determine the spheres of cooperation, the overall procedure for financing projects being built, the schedules and terms of credit repayment, the procedure for financing the developing countries' own expenditures connected with the construction of particular projects.

Credits granted developing countries on preferential terms are generally repaid through deliveries of traditional developing-country exports, as well as items from new national enterprises. Goods to repay credits are supplied under CEMA

member-nation trade agreements with the corresponding developing country. In this regard, the prices for the goods are set on the basis of world prices.

One distinguishing feature of economic relations with developing countries is the fact that CEMA member-nations do not lay any claim to the enterprises and facilities built with their help, nor do they try to establish control over the economies of these states or privileges or other advantages not coincident with national sovereignty. All facilities built with CEMA member-nation help are transferred in full to national ownership by the developing states.

The amount of CEMA member-nation assistance to the developing countries of Africa had increased approximately nine-fold in 1980 as compared with the 1963 level. CEMA member-nations have rendered the greatest amounts of economic and technical assistance to such African states as Algeria, Libya, Nigeria, Guinea, Ethiopia, Angola and Mozambique.

In a number of countries of the African continent, large-scale prospecting and geological surveying work is being done with the assistance of specialists from countries of the socialist community. As a result, significant mineral reserves have been discovered in such countries as Algeria and Nigeria.

Some 1,964 industrial enterprises and other projects had been, were being or were to be built in the young states of Africa as of 1 January 1981 with the technical assistance of CEMA member-nations, and 1,507 of these had been built and put into operation.

Much assistance is being rendered the African countries in creating an energy base. According to 1980 data, 425 power-engineering and power-infrastructure projects had been built on the continent with the economic and technical assistance of CEMA member-nations. They include a 55,000-kW TES in Algeria, two electric power transmission lines (198 km) in Libya, a hydroelectric complex consisting of a dam with a 10,000-kW GES and 192 km of electric power transmission lines in Morocco, six 1,800-kW diesel electric power plants in Zambia, and others.

Thirty-three ferrous and nonferrous metallurgy enterprises have been built in Africa with the economic and technical assistance of CEMA member-nations. These include a metallurgical plant with a capacity of 410,000 tons of steel per year in Annaba (Algeria), a bauxite mining complex to produce 2.5 million tons of bauxites per year in Kindia (Guinea). Construction of the second line of the metallurgical plant in Annaba is complete, increasing its capacity to two million tons of steel, 1.4 million tons of pig iron and 540,000 tons of rolled metal per year. Nigeria is building a large metallurgical plant with a capacity of 1.3 million tons of steel.

Nineteen petroleum extraction, oil refining and gas industry projects have been built on the continent. Thus, a large oil refinery has been built in Ethiopia, practically freeing the country from the necessity of importing petroleum products. Two oil refineries have been put into operation in Libya.

The problem of providing the populace in African countries with food and manufactured goods remains critical. An overwhelming majority of these countries



are forced to import them from abroad. In this regard, agricultural enterprises and enterprises of food and light industry being built with CEMA member-nation assistance are very important. They are helping organize state crop and stock raising farms, experimental stations, scientific research laboratories and agricultural academic institutions, in installing enterprises to produce and repair agricultural equipment, in mastering virgin and long-fallow land, in creating irrigation systems, and so on.

CEMA member-nations have built 127 agricultural facilities, including a sugarcane plantation and two state farms to raise corn and rice in Ghana, two stock-raising farms in Guinea, two vegetable hothouses in Libya, and a state farm in Mali. Planning-surveying work has been done on about 10,000 ha to study the possibility of producing forage crops in Algeria.

CEMA member-nations have helped build 192 food-industry facilities in African countries, among which are flour mills in Libya, Mali and Kenya. A canning factory and bakery are being built in Algeria, two packing plants in Ethiopia, and a fish cannery and a plant for processing fruit and vegetables in Kenya.

Eighty-three light-industry facilities have been erected, including a leather-goods plant, textile combine, cotton-spinning factory and four footwear factories in Algeria, two footwear factories in Ghana, a textile factory in Nigeria, a leather-goods plant in Tanzania, a cotton combine in Uganda, and three footwear factories and a leather-goods plant in Ethiopia.

African states exhibit considerable interest in studying planning experience in CEMA member-nations. In this area, contacts are being set up among planning agencies, agreements are being concluded, and planning working groups are being created within the framework of intergovernmental commissions for economic and scientific-technical cooperation. The socialist countries render their partners assistance in working out planning methodology and organization with consideration of local conditions, in preparing long-range forecasts and programs for developing and cooperating at the branch and interbranch levels.

The economic and technical cooperation of CEMA member-nations with the countries of Africa is basically on a bilateral basis. However, a decision has recently been made within the CEMA framework to cooperate with certain of them on a multilateral basis. This applies to such countries of socialist orientation as the People's Republic of Angola, the People's Republic of Mozambique and Socialist Ethiopia.

For example, multilateral veterinary assistance by CEMA member-nations to the People's Republic of Angola has been very important. Rendered in 1980 on a no-charge basis, it included the vaccination of cattle, training Angolan veterinary service personnel, and properly setting up work in central and regional veterinary laboratories.

One of the most important areas of CEMA member-nation cooperation with developing countries is the sphere of education and personnel training. Among the diverse forms of personnel training for various branches of industry and agriculture, we can single out the training of local personnel by CEMA member-nation specialists in the course of building and operating industrial and other projects,



creating the material-technical base of the education sphere (institutes, study centers, tekhnikums), training the citizens of young states in countries of the socialist community. Thousands of engineers, technicians and skilled workers have thus been trained for the liberated countries of Africa.

Twenty VUZ's, 23 secondary special academic institutions and more than 140 study centers and vocational-technical schools have been, are being or will be built with the assistance of CEMA member-nations in African states. Among them are the institute of petroleum and gas and a tekhnikum in Algeria, with projected enrollments of 1,500 each, three agricultural machinery operator training centers in Angola (2,000 students each), and others.

The Council of Economic Mutual Assistance Scholarship Fund is a qualitatively new form of assistance to the developing countries of Africa in training national personnel on a multilateral basis. It was created in 1974-75 to train national personnel in CEMA member-nation VUZ's in those specialties for which the need was greatest in the developing countries.

Beginning in the 1976-1977 school year, the CEMA Scholarship Fund was broadened to include post-VUZ and secondary special education. As a result, the number of CEMA scholarship holders has increased significantly. During the time the fund has been in operation, CEMA member-nation academic institutions have admitted about 4,000 scholarship students from 50 developing countries, including 1,400 from 24 countries in Africa.

CEMA member-nation economic and technical cooperation with developing countries is a model of new equal-rights relations and meets the interests of both the cooperating parties. CEMA member-nations will continue to develop cooperative relations with developing countries in the interests of deepening the international division of labor on a just, mutually advantageous equal-rights basis, thus contributing to a progressive restructuring of world economic relations.

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USE, SAVING OF FUEL, ENERGY, RAW MATERIALS BY CEMA MEMBERS

Current Activity

Moscow PLANOVYE KHOZYAYSTVO in Russian No 8, Aug 82 pp 105-109

[Article by Honored Figure of Science of the RSFSR I. Oleynik, professor of the Academy of Social Sciences attached to the CPSU Central Committee: "The Directions of the Activity of CEMA Countries on the Improvement of the Use and the Economy of Fuel, Energy and Raw Materials"]

[Text] The increase of the efficiency of the use and the utmost economy of material resources are one of the most important directions of the practical implementation of the policy of the intensification of social production in the countries of the socialist community. Much attention was devoted to the means and methods of implementing this policy at the 26th CPSU Congress and the November (1981) CPSU Central Committee Plenum, at the congresses of the fraternal parties of the CEMA countries and at the 35th and 36th meetings of the CEMA sessions.

At the November (1981) CPSU Central Committee Plenum L. I. Brezhnev stressed that the resources, which our country has, are making it possible to look confidently to the future. It is necessary merely to manage them carefully and intelligently, to pursue the strictest policy of economy and to introduce energy-saving equipment and technology more rapidly. "These are the key tasks of the development of the national economy. They should constantly be at the center of attention of republic, oblast and city party organizations, all economic organs and scientific institutions."<sup>1</sup>

The urgent need for the steady improvement of the system of the study and generalization of the experience being gained in economy and thrift, the evaluation of its individual elements and the extensive dissemination of detailed information on everything valuable and new in this area is also emphasized in the documents of the fraternal parties.

The urgency of the efficient use and utmost economy of resources in the countries of the socialist community stems from a number of factors. One of them is the

1. L. I. Brezhnev, "Rech' na Plenum Tsentral'nogo Komiteta KPSS 16 noyabrya 1981 goda" [Speech at the CPSU Central Committee Plenum on 16 November 1981], Moscow, Politizdat, 1981, p 8.

rapid increase of the volumes of extraction and consumption, owing to which each percent decrease of the consumption or economy of resources acquires great economic importance. Thus, whereas in 1970 with a decrease of material expenditures in the national economy by 1 percent the national income of the USSR increased by 3 billion rubles, at present it increases by 6-6.5 billion rubles. Each percent saving of fuel and energy resources in social production exceeds by twofold, and in some sectors by three- to fourfold, the saving from the corresponding increase of labor productivity.

In connection with the working of less efficient deposits and the increase of the proportion of the workings in remote, hard to reach regions of the USSR, as well as for several other reasons the cost of the extraction and transportation of resources is increasing. Thus, the expenditures on the production of 1 ton of petroleum in our country during the past 5-year period were more than twofold greater than during the period prior to 1972, while during the current 5-year period they will increase more. The specific capital investments in the mining of iron ore during the past 15 years have increased by approximately threefold. In the GDR as a result of the complication of the mine operating and economic conditions the specific capital investments per unit of increase of the production of raw materials in the 1970's as compared with the 1960's increased by 50 percent, while in the 1980's they will increase by more than twofold. Calculations show that the expenditures on the implementation of measures on the more efficient use and economy of resources are one-fifth to one-third as great as the outlays on the increase of their extraction or production in the same amount.

With each year valuable experience in the implementation of measures on the economy of material resources in production and everyday life, the decrease of waste and its recovery and the processing of secondary resources is being gained in the countries of the socialist community. The sharing of this experience, to which great importance is being attached, is being accomplished in various forms and at all levels of economic and planning activity. Here the role of direct, immediate ties between ministries, departments, local party and economic organizations, production collectives of enterprises and associations and production leaders of the socialist countries is steadily increasing. The direct ties of the local organs and production collectives of the border regions of the fraternal countries are being broadened. Various forms of competition between similar enterprises, their shops and production leaders, as well as the forms of interrelations under the motto "From the Machine Tool to the Machine Tool" are being developed, friendship rallies are being held.

The extensive sharing of experience among the workers of the countries of the socialist community is contributing to the improvement of mutual understanding and the strengthening of friendship among the fraternal peoples and to the strengthening of the world socialist system. In the decree of the CPSU Central Committee of 19 February 1982 "On the 60th Anniversary of the Formation of the Union of Soviet Socialist Republics" it is noted that the close cooperation of the fraternal parties in all areas is making it possible to combine the common and national interests of the socialist states, to solve successfully the arising problems and is enabling each country and the entire socialist community to make progress.

In the CEMA countries such most important measures as the improvement of the sectorial structure of the economy on the basis of the decrease of the proportion of

energy-consuming and materials-consuming enterprises, especially in the countries which are experiencing a shortage of fuel, energy and raw materials; the rationalization of the fuel and energy balances, their reorientation from what is called "petroleum" power engineering to "coal" power engineering; the introduction in production of energy- and materials-saving equipment and technology and new models of items are being implemented in the area of the efficient use and economy of fuel, energy and raw material resources.

In the majority of CEMA countries the specific rates of consumption of fuel, energy and raw materials are being systematically revised downwards, a fee, which has been increased several fold (at times by 10-fold), is being introduced for their consumption in excess of the established rates. Steps are being taken in reducing the supply of electric power for the lighting of streets, roads and buildings. At the same time the rate for the electric power, which is consumed at enterprises and in housing and municipal services during the period of the minimum load of the electric power network, is being reduced, the demands on the heat insulation of apartment and other buildings under construction are being made more rigid. Measures on more thorough refining are being implemented for the purpose of the economy of petroleum (and other types of raw materials) and the increase of the yield of petroleum products. The number of operating obsolete, worn out motor vehicles, which consume a large amount of fuel, is being decreased, and the multishift operation of economical means of transportation is being introduced. The fleet of official passenger cars is being decreased, strict norms of their mileage and operating time are being established, the maximum speed is being limited.

In the CEMA countries serious attention is being devoted to the improvement of the collection and the use in production of secondary raw materials, which is also aimed at the saving of not only the corresponding types of primary raw materials, but also energy. According to the available calculations, approximately 75 percent less energy is required for obtaining 1 ton of steel from scrap in electric furnaces than for the entire cycle of its smelting from iron ore, 70 percent less energy is required for the production of paper from scrap paper than from wood pulp. When obtaining aluminum from scrap the consumption of energy is reduced to one-twelfth as compared with the processing of natural raw materials.

Considerable and diverse experience in the rationalization of the use and the economy of resources has been gained in the GDR. The assets being allocated for this make up 30-50 percent of the total expenditures which ensure the increase of the production of energy resources. The expenditures of materials per 1,000 Marks of produced output are grouped in the GDR with the three basic state indicators, in accordance with which the activity of enterprises is evaluated, and the system of material stimulation is organized with allowance made for them. The specially created Ministry of Materials Management, of which there is no similar one in the other socialist countries, coordinates and organizes the work in the indicated area. It does not have physical assets and does not distribute them among users. Its main tasks are the implementation of the current and long-range statewide policy of the efficient use and economy of fuel, energy and raw materials, the coordination of scientific research and the elaboration and implementation of scientifically sound rates of consumption of resources.

The section "The Economy of Fuel, Raw Materials, Materials" is present in any economic plan of the GDR. At enterprises and combines a new position has been



introduced--engineer for the economy of energy and materials, who is responsible for the collection and use of secondary raw materials. The training of the corresponding specialists has been organized at the higher educational institutions of the country.

In the GDR the procedure of setting the price for products of industry has also been changed substantially. Previously the prices were set primarily on the basis of the production expenditures of the production of output, which poorly stimulated the decrease of the consumption of energy, raw materials and materials. They now depend on how much better the new items are than the previous similar items. The increase of the prices for fuel and raw materials and their approximation of the world level are increasing the aspiration of enterprises to economize and are prompting them to take into account the world economic situation. Books of the best indicators, which consist of three sections, are being kept at many enterprises of the country. The actual expenditures of materials per unit of produced output are reflected in the first section; the best indicators achieved in the national economy--in the second; the plans and obligations of the collective--in the third. These indicators are analyzed once a quarter, the achieved gains and available reserves for the enterprise as a whole and its subdivisions are ascertained. Competition for the title "Enterprise Which Manages in an Exemplary Manner the Power Services," the awarding of which is accompanied by a considerable reward of the collective, as well as competition for the improvement of other production indicators have been under way in the country for several years now.

Measures on the intensification of research, pilot design work, the production, marketing and exporting of products are being implemented at a number of enterprises. At the Takraf Combine, one of the largest suppliers in the GDR of material-handling equipment to the fraternal countries, and at other enterprises the output being produced is subject to annual technical certification. During it the technical and economic characteristics of not only the items as a whole, but also each assembly and the parts are carefully checked. As a result, reserves of the decrease of the consumption of energy and materials when producing the items or parts for them, the increase of capacity with the retention of the former parameters and so on are revealed.

A significant place in the increase of the attention to the economy of fuel and materials is being assigned to the material stimulation of each worker for its accomplishment. For example, the industrial and construction enterprise has the right to contribute to the material incentive fund 50 percent of the assets obtained from the decrease of the specific consumption of energy and 20 percent of the assets obtained from the economy of raw materials and several materials. The engineering and technical personnel also receive a reward.

The implementation of the indicated measures is yielding appreciable results. Thus, at the Lahnewerke Chemical Combine in 1980 the production of output increased by 7.6 percent, while the consumption of energy decreased by 4.3 percent. At the 7 October Machine Tool Building Combine with an average annual increase of the production of output during the past 3 years by 6.6 percent the consumption of rolled steel decreased by 3.1 percent, pig iron--7.2 percent. At present about 150 programs on the improvement of the parameters of the machines, assemblies and parts being produced have been adopted here, which should provide a saving of metal in the amount of 10-20 percent. At the Takraf Combine during the current 5-year

period it is planned to increase the production volume by 6.5 percent and the amount of consumed materials by only 0.5 percent.

Production innovators, particularly workers who, by using their production know-how, frequently find a solution to complex technical problems, are playing an important role in the improvement of the technical and economic parameters of the items being produced at enterprises of the GDR. The innovators among the workers are perforce included in the creative collectives which are being set up at enterprises for the solution of individual technical problems. These collectives work primarily during nonworking time in accordance with an agreement with the administration, in conformity with which the latter provides the necessary assistance (it offers equipment, materials, facilities and so on). A portion of the saving obtained as a result of the introduction of the developments of innovators becomes a source of their material stimulation subject to the contribution of each to the accomplishment of the problem.

Questions of the use of secondary resources are also being successfully solved in the GDR. Thus, at present 70-75 percent of all the steel, 45 percent of the lead, 37 percent of the copper and 20 percent of the zinc are being smelted from scrap metal, 42-45 percent of the need for raw materials for the cardboard and paper industry is being met by waste paper, the collected bottles and jars are meeting 60-70 percent of the needs for glass containers for the food industry. The decision has been made on the concentration of all work on the recording, processing and use of secondary raw materials and production waste products in the Ministry of Materials Management. The measures being elaborated are being included in the system of centralized state planning. An information system with data on the most important indicators and attributes of secondary raw materials has been created. Their receipt at apartment houses and stores and their collection on the streets in specially installed containers for broken glass, nonstandard glassware and plastic packaging have been organized. Special collection centers are in operation. The public and trade unions are being enlisted in the work. Examples of the best organization of the collection of secondary raw materials in the world, which is characteristic of the most developed states, are being promoted. The indicated measures made it possible to increase the collection of secondary raw materials in the GDR to 22 million tons in 1980 and to meet 10 percent of the total need for raw materials (excluding plant products). In 1985 this amount will come to approximately 21 percent.

Similar work has been launched in other CEMA countries. In Bulgaria a national program of the efficient use of energy and other material resources has been elaborated and is being implemented. A comprehensive program of the management of the power services, which provides for the more complete supply of the country with energy resources with a decrease of the growth rate of their consumption, has been adopted in Hungary. Here various material stimuli are of great importance. In the country the prices for energy carriers have been increased, preferential credits and state subsidies for measures on their economy have been established, new, less energy-consuming technologies of the production of individual types of products are being introduced. Along with this stricter norms for the heat insulation of buildings in construction have been introduced. The construction of a heat and electric power station, at which household waste will be used as a fuel, has been started in Budapest.

In Czechoslovakia, for the purpose of saving material resources, state programs of the efficient use of fuel, energy and raw materials, particularly ferrous and non-ferrous metals, have been drafted, agreements have been concluded between ministries and departments on the improvement of the utilization of secondary raw materials. As a result of the implementation of comprehensive measures the annual decrease of the specific consumption of fuel and energy during the current five-year plan by 2 percent and of ferrous and nonferrous metals by 4.5-5 percent is planned. Steps on the considerable decrease of the losses of agricultural products and foodstuffs during their transportation and storage have been envisaged. The total saving of energy resources by the end of the five-year plan should come to not less than 12 million tons of conventional fuel.

The felling and reforestation method of logging is also in effect in the country. The brigades of loggers are divided into links, which perform individual types of operations not only on logging (felling, the removal of branches, transportation), but also on the clearing of the felled sections and the planting of new trees. A single economic organ is responsible for the indicated operations. The collectives of brigades, specialists and managers of forestry are given incentives only in case of the performance of the entire set of operations. As a result of such an approach with annual logging in the amount of about 18 million m<sup>3</sup> the reserves of timber in the CSSR not only are not decreasing, but are even increasing. The country is completely meeting its needs for lumber and is exporting a portion of it. In the amounts of timber per hectare of forest the CSSR holds one of the leading places in the world.

Owing to the steps being taken on the efficient use of fuel and energy resources the average annual rate of decrease of the power-output ratio of the national income in the European CEMA countries (excluding the USSR) in the 1970's came to 1.2-1.3 percent. During the current 5-year period it will increase to 1.5 percent. According to estimates, the power-output ratio of a unit of national income on the average for the CEMA countries in the late 1970's exceeded by 30-40 percent the corresponding indicator on the average for such EEC countries as the FRG, England, France and Italy.

Interesting experience in the economy of material resources has been gained in the USSR. A movement for economy and thrift has been launched in the country in conformity with the decisions of the 26th CPSU Congress, the November (1981) CPSU Central Committee Plenum and the decree of the CPSU Central Committee and the USSR Council of Ministers "On Stepping Up the Work on the Economy and Efficient Use of Raw Material, Fuel, Energy and Other Material Resources." Broad masses of workers, deputies of the people's soviets, organs of the People's Control, public organizations and scientific and technical societies are participating in it. In 1985 the saving of fuel and energy resources will come to not less than 200 million tons of conventional fuel as against 125 million tons in 1980. Here 70-80 million tons should be obtained by the decrease of the rates of consumption.

The collective of the Moscow Machine Tool Building Plant imeni Sergo Ordzhonikidze, while improving the designs of the machine tools and automatic lines being produced and introducing advanced technological processes, set for itself the task to decrease the metal content of the output being produced during the current 5-year period by 11 percent and its power-output ratio by 7 percent. It is planned to achieve the entire increase of the production volume without an increase of the



consumption of rolled metal. Here the proportion of products of the highest quality by the end of 1982 should come to 75 percent, while by the end of the five-year plan it should come to 80 percent. The collective of the plant has assumed the obligation to additionally save in excess of the decrease of the rates of consumption, which were planned for 1982, 700,000 kWh of electric power and 1.5 gigacalories of thermal energy. A metalworking mill with a reinforced concrete base has been produced and is undergoing testing. In case of a positive result of these tests the saving of metal when producing each mill will come to about 1.5-1.7 tons.

The Moscow Motor Vehicle Plant imeni I. A. Likhachev has made major gains in the introduction of low-waste technology. It is based on a thorough engineering analysis of the entire process of the production of machines and devices--from the production of the billets to the final production operation. As a result of the introduction of a set of measures the saving of metal at the plant will come to approximately 120,000 tons a year. The collective of the Moscow Motor Vehicle Plant imeni I. A. Likhachev has assumed the obligation to increase the life of the motor vehicles being produced by 16 percent and of the motors by 20 percent, to introduce low-waste technology and to decrease the consumption of rolled metal by the end of the five-year plan as against the established norms by 120,000 tons a year. The fulfillment of the obligations will provide a saving during the 5-year period in the amount of 320 million rubles and will decrease the consumption of gasoline by 500,000 tons and furnace fuel oil by 45,000 tons.

Great achievements exist at other enterprises. As a result of the retooling of production, the introduction of advanced technology and the modernization of operating equipment at the Kotlas Pulp and Paper Combine the production of pulp in the past 5 years has increased by 1.5-fold and of paper for printing by 2.5-fold, the entire increase was obtained by the increase of labor productivity. The expenditures per ruble of commodity production at the combine are 25 percent less than the average sectorial expenditures, the lowest consumption of timber per ton of pulp in the sector has been achieved. The enterprise was one of the first to begin the use for the production of pulp and fiber board of deciduous wood and scrap of wood processing, the proportion of which in the balance of timber raw materials came to 75 percent. From the byproducts of the processing of timber raw materials the combine annually produces 4,700 tons of nutrient yeast for animal husbandry, about 3,000 tons of fatty acids and 4,000 tons of rosin. At the enterprise the forming secondary energy resources are being completely utilized. They account for 1 ton in 5 of the fuel being consumed. At the Solikamsk Pulp and Paper Combine in 1981 the weight of a square meter of newsprint was reduced by 0.6 g, which made it possible to increase its production by 72 million  $m^2$ , while saving 15,000  $m^3$  of wood and 1.5 million kWh of electric power.

The collectives of the mentioned combines assumed the obligations by the end of the current five-year plan by the further reduction of the weight of paper and cardboard and the increase of the yield of pulp per  $m^3$  of timber to save about 1 million  $m^3$  of wood, 100,000 tons of conventional fuel, 60 million kWh of electric power and 20,000 tons of various chemicals and to produce by means of the saved resources an additional 150,000 tons of pulp, 80,000 tons of cardboard and 700 million  $m^2$  of paper for printing.

The economic, scientific and technical cooperation of the CEMA countries, particularly in the area of the development and introduction of new energy-saving



technologies and the improvement of existing ones, the increase of the technical level of power engineering, the production of highly productive equipment, steam boilers, heat exchangers and so on, is playing an important role in the economy of resources. The cooperation of the CEMA countries in the area of the technical renovation and construction of new thermal electric power stations and in their equipment with large power blocks with a rating of 500 MW is being developed, which is making it possible to decrease substantially the specific consumption of fuel for the generation of electric power and to decrease its production cost. Measures are being implemented on the use of low-grade coals, especially at heat and electric power stations, on their conversion into liquid and gaseous fuel and the efficient gasification of coals on an industrial scale.

The cooperation of the CEMA countries in the improvement of the structure of the national economic complexes on the basis of the decrease of the proportion of power-consuming works in the countries experiencing the greatest shortage of fuel and power is subordinate to the goals of the saving of fuel and energy. Thus, in 1979 the General Agreement on Specialization and Cooperation in the Production and Reciprocal Deliveries of Individual Types of Chemical Products Which Are Characterized by a Different Power-Output Ratio was concluded between the USSR and the other European CEMA countries. In conformity with the agreement the most power-consuming chemical products (ammonia, methanol, low-pressure polyethylene and others) will be produced in the USSR on the basis of the inexpensive electric power of the eastern regions, while less power-consuming products (low-tonnage plastics, chemical additives to polymeric materials, chemical means of plant protection and others) will be produced in the GDR and several other CEMA countries with the subsequent exchange of these types of products.

Atomic energy and water power have great reserves for the saving of energy resources. The use of the renewable sources of energy of the sun, thermal waters and wind power is being expanded. According to rough estimates, 1 million kW of installed capacity of nuclear electric power stations provides an annual saving of more than 2 million tons of conventional fuel. At present the total capacity of the nuclear electric power stations in the USSR, as well as the nuclear electric power stations built with its assistance in Bulgaria, the GDR and Czechoslovakia is slightly more than 18 million kW. The total capacity of the nuclear electric power stations of all the CEMA countries in 1990 should come to nearly 100 million kW. Their operation will make it possible to save annually approximately 200 millions tons of conventional fuel. In the GDR, for example, nuclear electric power stations are now already saving annually about 16 million tons of lignite.

Programs of the cooperation of the CEMA countries in the construction of nuclear central heating plants and nuclear boilers, which will generate steam for the needs of industry and central heating, as well as on the use of the energy of the sun, the wind and thermal waters have been elaborated. This will not only save fuel, but will also make it possible to solve successfully environmental protection problems.

At the end of the current five-year plan in the USSR it is planned to put into operation the first experimental solar electric power station with a rating of 3-5 MW in the Crimea and geothermal electric power stations in Kamchatka Oblast, Dagestan and Stavropol Kray. The construction of a solar electric power station in Uzbekistan will be started. The adjusted expenditures for solar power plants

should be two-thirds as much as the inclusive expenditures on the use of solid fuel in the same regions. The use of solar heat may yield a saving of fuel in the amount of 60-70 percent of its annual consumption for these purposes. Solar hot-houses with storing equipment are 40-50 percent less expensive than conventional hothouses with artificial heating, while their operating costs are half as much.

The CEMA countries are elaborating programs of cooperation in the use of wind power. The reserves of wind power on the territory of the USSR alone exceed by 2.5-fold the reserves of other types of natural energy of the country (coal, petroleum, peat and others taken together). The potential wind power of the USSR is estimated at 11 billion kW, which is many times greater than the installed capacity of all electric power stations. By means of the use of solar energy, the deep heat of the earth and the wind during the current five-year plan about 3 million tons of conventional fuel should be replaced in our country, while during the next five-year plan about 10 million tons should be replaced.

The sharing of the experience of the socialist countries in the economy and more efficient use of fuel, energy and raw materials and their comprehensive cooperation in this area are an important direction of the intensification of production and the increase of its efficiency.

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#### Long-Range Program

Baku VYSHKA in Russian 15 Jun 82 p 3

[Article: "Given Birth to by Cooperation. The Force of Integration"]

[Text] The development of a modern economy has placed the problem of its supply with power in the ranks of the most important national economic tasks. According to the forecasts of experts, in 1990 the consumption of power in the countries, which belong to the Council for Mutual Economic Assistance, will have increased by approximately 2.5-fold.

On the other hand, the expenditures on the extraction and transportation of fuel and raw materials, of which the Soviet Union is the main supplier to the socialist countries, are increasing. This is connected, first of all, with the fact that their extraction is shifting to remote, sparsely populated regions. Many of the new deposits are being developed under unfavorable geological mining conditions. Not by chance during the past five-year plan did the expenditures on the production of a ton of petroleum in the USSR, for example, increase by more than twofold as compared with the period prior to 1972. They are also increasing during the current five-year plan.

Therefore, particular importance is being attached to the pooling of the efforts of the fraternal states in this area. It is being developed on the basis of a long-term goal program of cooperation. This is one of the five programs which encompass the most important sectors of physical production.

One of the most important stages of the implementation of the long-term goal programs of cooperation is the conclusion on their basis of general agreements and

other pacts. There should be grouped with the most important ones the agreement on the multilateral international specialization and cooperation of production and reciprocal deliveries of equipment for nuclear electric power stations for the period of 1981-1990.

What is its significance? First of all the rapid development of atomic energy conforms to the task of meeting the rapidly increasing needs of the CEMA countries for electric power. This is the most important direction of the fuel and energy portion of the program. The construction of nuclear power stations with a total capacity of about 37 million kW is planned in the European CEMA countries.

As is known, during the current 5-year period the fraternal socialist countries are placing the emphasis on intensive methods of management. Considerable untapped reserves still exist here. Take if only petroleum refining. Its degree, or, as specialists say, its depth in the majority of CEMA countries is now estimated at approximately 45-50 percent. It turns out that not less than half of the most valuable chemical raw material in the form of fuel oil is being used as a power fuel. Specialists consider quite realistic the possibility of increasing the depth of refining to 65-70 percent. The real yield from this is many millions of tons of fuels and lubricants a year.

That is why up to 1990 it is planned to make deliveries within CEMA of advanced types of complete sets of equipment, by means of which it is possible to refine nearly 190 million tons of petroleum a year. Such a task is also being accomplished on the basis of the specialization and cooperation of production.

As was noted at the 26th CPSU Congress, "integration is gaining strength." One of its concrete expressions is the implementation of the long-term goal program of cooperation in the area of energy, fuel and raw materials.

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CSO: 1825/102

## TRADE WITH INDUSTRIALIZED COUNTRIES

### SOVIET, FINNISH OFFICIALS REVIEW BILATERAL TREATY

#### Interview With Esko Rekola

Moscow *Ekonomicheskaya Gazeta* in Russian No 40, special supplement Oct 82 pp 1, 3

[Interview with Esko Rekola, Finland's minister of foreign trade; "Five Billion Rubles -- New Level of Our Trade," date and place not specified]

[Text] In the opinion of Esko Rekola, Finland's Minister of Foreign Trade, Finnish-Soviet trade has reached a new high level.

[Question] How do you evaluate the achieved trade level between the USSR and Finland?

[Answer] At present, Finnish-Soviet trade makes up 25 percent of the entire volume of foreign trade of Finland. Our main problem now is to support and maintain this level.

Both sides are of the opinion that continuing trade at the present rate is mutually advantageous to both countries.

The development of trade between our countries was especially intensive during those three decades when five-year trade agreements were concluded. As a result of higher petroleum prices on the world market, two sharp rises occurred in the Finnish-Soviet trade, as it were, for example, in 1979-1980 when the rise was especially rapid. We are satisfied with the present trade level and strive to maintain it.

During the past two years about one quarter of the entire volume of Finland's foreign trade was with the USSR, while previous to that it was about 20 percent. Trade with the Soviet Union is a reliable stimulus to us at a time when our trade with the West is evidently slowing down. In other words, an increase in our trade occurred in very advantageous years for Finland.

[Question] What are the prospects for the further development of a balanced, mutually beneficial trade pact between our countries?

[Answer] The basic document of Finnish-Soviet economic cooperation is the Trade Agreement signed in 1947. Trade is of a two-sided nature, because it has been found that a mutual balance of imports and exports meets best the interests of both sides.





Esko Rekola, Finland's Minister of Foreign Trade

Balanced trade is one of the most important questions of today. We know that at present there is a favorable balance for Finland in its trade with the USSR. A typical feature of its development is demonstrated in this since, in the first years of the five-year agreements, there originated, as a rule, a favorable balance for us which, at the end of the agreement period, was equalized. We proceed on the basis that such seasonal variations must be equalized at the end of the five-year period.

In the area of cooperation between our countries we try to see that the changeover from one five-year agreement to another is flexible. For example, the last changeover was smoother than expected. Both sides exhibited an especially great flexibility and there were no complications.

[Question] What steps are being taken to increase Finnish imports from the USSR, especially of machines and equipment?

[Answer] We strive to increase imports from the USSR. Of course, this is not a simple matter. The solution of this problem depends greatly on how long it will take to lay the gas pipeline and whether new import goods will be found, for example, mineral raw materials, metals and chemical products.

The cooperation of production in the area of building electrical locomotives is considered one of the most significant achievements in the area of importing Soviet machines and equipment into Finland up to now. In this case, we purchase machines not of the usual series, but a special type of jointly designed electrical locomotives that take into account Finland's conditions.

Our industry is constantly finding new import goods in the USSR; however, this process needs to be greatly accelerated. First of all, firms need to become acquainted in greater detail with Soviet machines and equipment.

In the widely-used consumer goods area, new import products are constantly being found, although their volume is not as great as before. Yet, one should not forget the ever increasing trade near our borders which makes a very interesting contribution to the trade between our countries.

[Question] What new forms of cooperation and specialization of production between both countries appear to be the most effective?

[Answer] Besides the electrical locomotives already mentioned, the construction of the "Rautaruukki" Metallurgical Plant at Rakha and of the nuclear electric power plant in Loviza may serve as good examples of various forms of cooperation in particular. Of new cooperation forms, the greatest expectations are for cooperation in third world countries. This work requires especially great compatibility and is an interesting area. Open questions are encountered here also: how to bill exports to a third world country -- either the export of each country or the Finnish-Soviet two-sided trade? We in Finland think that such exports should be considered an independent and, therefore, an addition of our mutual trade.

#### Interview With Akhti Kar'yalaynen

Moscow EKONOMICHESKAYA GAZETA in Russian No 40, special supplement, Oct 82 pp 1, 3

[Interview with Akhti Kar'yalaynen, chairman of the Finnish part of the Intergovernmental Soviet-Finnish Commission on Economic Cooperation; "Leading Role of Commission on Trade Development," date and place of interview not specified]

[Text] Akhti Kar'yalaynen, Chairman of the Finnish part of the Intergovernment Soviet-Finnish Commission on Economic Cooperation, considers that the commission has a central role in the development of trade between our countries.

In A. Kar'yalaynen's opinion, all of the most important events after the first half of the seventies occurred with the aid of the commission.

"The entire economic life of Finland is represented in our commission. The commission has acted in an exceptionally flexible manner and, therefore, I trust in its efficiency," stated A. Kar'yalaynen.

Akhti Kar'yalaynen thinks that the trade between the USSR and Finland will become much more stable in the very near future.

"At present, the basic thrust of the trade is in expanding Finnish purchases in the USSR"

"Three-fourths of the Finnish imports from the USSR consist of various types of power, while the remainder are machines, equipment and raw materials. The list of import products must be expanded and work in that direction has been going on

for several years, but results are produced with difficulty. The import of machines and equipment is being expanded constantly; however, constant efforts on both sides are needed here. We also expressed our desire for additional imports in other areas, including various ores, ore concentrates, metallurgical slags etc.

In recent years, building facilities on the territory of both countries has become a new question. Simultaneously with this, production cooperation in various industrial sectors is becoming more prominent," stated A. Kar'yalaynen.

"The first experience in cooperation in third world countries was obtained, so far, on a comparatively small scale. The possibilities in this sector are very broad. It is only necessary to learn to act jointly. Studying this will take time but already we have made a glorious start."

#### New Ideas in the Air

"At present, it is still difficult and too early to forecast what the following five-year agreement will be like, but it seems to me that the export of Finnish "know-how" in various fields will become more urgent. Besides, it was decided to study the food program of the USSR which may open up possibilities to Finland for utilizing the experience of its specialists and possibly, also for new exports. There are many new proposals in the air," stated A. Kar'yalaynen.

#### Own Quota for Projects

"A discussion was carried on about whether to assign a separate quota to construction projects. It is quite possible that this question will be discussed in the process of negotiations which will be held this fall on trade-turnover for next year."

"It appears to me that there is no basis for reevaluating the system of payments, since this system does not present any obstacles to the development of our trade; on the contrary -- the clearing system was found to be useful for Finland. I am convinced that this system only facilitated trade development between our countries," noted A. Kar'yalaynen.

#### Leading Role of the Commission on Economic Cooperation

"The Intergovernment Commission has already existed for 15 years, and it must be said that it played a central role in the trade development between the USSR and Finland. It may even be stated that since the beginning of the seventies, all of the most important events occurred, and new steps taken within the framework of the commission. Moreover, the commission developed new five-year agreements, prepared the long-range program for the development and expansion of economic-trade, industrial and scientific-technical cooperation between the USSR and Finland until 1990, as well as an agreement that the program would be extended to 1995, and making it more precise and amplifying its content."

"It seems to me that the commission is solving the problems imposed on it satisfactorily. Since it represents all business circles in Finland, we can rightfully consider it all-encompassing."

## Economic Development of Finland in the Very Near Future

"All forecasts made recently speak about the fact that economic growth in the very near future will be relatively small. The increase was found to be smaller than assumed only a year or two ago. If we maintain a two to three percent annual growth that, it seems to me, will not be too bad a success," was the evaluation given by A. Kar'yalaynen.

### Interview With Nikolay Patolichev

Moscow *Ekonomicheskaya Gazeta* in Russian No 40, special supplement Oct 82 pp 1

[Interview with Nikolay S. Patolichev, USSR minister of foreign trade. "In an Atmosphere of Mutual Understanding," date and place not specified]

[Question] Trade with Finland, a relatively small country, reached a high level and became an example of business relations between countries with different social systems. What factors, in your opinion, facilitated this?

[Answer] The Soviet Union which this year marks the 60th Anniversary of its formation, carried out from the very start a line of peaceful coexistence between states on the basis of equal rights and mutually beneficial cooperation with all countries. This, in my opinion, is the most important factor in the successful development of Soviet foreign trade. During the 60 years its volume increased from 222 million rubles in 1922 to almost 110 billion rubles in 1981. It is especially pleasant for me to point out that the Soviet-Finnish trade increased at a still higher rate from 8.5 million to 5 billion rubles -- this is the road that we have traversed as trade partners during the past 60 years.

In this connection, it is difficult to overvalue the significance of the Soviet-Finnish Agreement on friendship, cooperation and mutual aid. Concluded in 1948, it remains in effect today.

Another important factor in the success of increased trade between our countries is its development according to plan and its balancing on the basis of long-term agreements and transactions. It is sufficient to say that Finland was the first of the Western countries that began to conclude (since 1951) five-year agreements on trade and payments. In the seventies, our countries changed over to determining long-range prospects for 10 to 15 years, showing anew an example of the broad possibilities for the development of economic relations. The basic document that determines the entire complex of economic ties between the USSR and Finland is the long-term program for developing and expanding commercial-economic, industrial and scientific-technical cooperation to extend to 1995.

Soviet-Finnish trade became an important factor in developing a number of industries in Finland and some production facilities in the Soviet Union.

All this became possible because of the sincere effort of our countries to live in friendship, due to the spirit of trust and mutual understanding created by many years of common painstaking work. This experience is especially valuable now when,





Nikolay S. Patolichev, USSR Minister of Foreign Trade

as never before, it is important to observe in intergovernmental relationships the conditions of the Helsinki Accords of the General European Conference which, in many respects, included the broad experience of the Soviet-Finnish good neighbor policy.

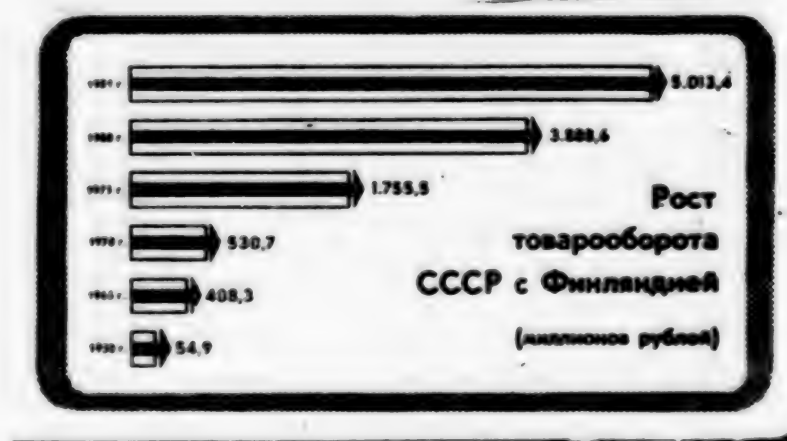
[Question] What new forms of trade-economic cooperation between the two countries, in your opinion, could be the most effective in coming years?

[Answer] The trade scales achieved between the USSR and Finland are greatly related to the appearance of new economic-trade cooperative forms that go beyond the framework of the traditional trade exchange. In other words, there is occurring not only a quantitative, but also a qualitative improvement in our cooperation.

The long-range program became a powerful impetus for the further development of new forms of cooperation. It defined 85 directions for cooperation on the basis of production cooperation, and Soviet organizations and Finnish firms are doing active work on the majority of them.

Already the joint construction of facilities has become one of the most dynamic directions for Soviet-Finnish cooperation and an important part of the mutual trade turnover. Finnish firms will continue the construction of the Kostomukshskiy GOK [Mining Enriching Combine], and the Svetogorskoye TsKB [Central Design Bureau], will participate in the construction and modernization of a number of transportation facilities, and food production and light industry enterprises. The Soviet Union is ready to continue the construction of facilities in Finnish territory, in particular, the nuclear power plant and the gas pipeline.

As is well known, cooperation in production assumes that partners have very good knowledge of each other, a high degree of trust and close collaboration between them. Positive examples of this are negotiations carried out at present on cooperating in building a nuclear icebreaker, and the production of special RR freight cars. In the area of shipbuilding, in our opinion, both sides should increase the delivery of Soviet ship component equipment in proportion to the increase in the purchase of ships from Finland. Moreover, there are possibilities for providing Soviet components to Finnish ships supplied to a third world country, as well as for organizing production cooperation and deliveries of components to Finnish vessels made in the USSR.



Trade turnover growth between the USSR and Finland (in millions of rubles)

Promising directions of production cooperation include the joint design and manufacturing of equipment for exploration and assimilation of the resources of the continental shelf, of equipment to save power, protection of the environment, coordination in creating automatic control systems for production, and concluding licensing agreements for the production of various technological equipment.

[Question] What is new in the plans of the Permanent Intergovernment Soviet-Finnish Commission on Economic Cooperation of which you are co-chairman?

[Answer] Recently we marked the 15th anniversary of fruitful activity of our commission. In my opinion, its input into the successful growth of Soviet-Finnish mutually beneficial economic cooperation was and is very great. At present, its main problem is the implementation of the long-term cooperation program.

Based on the results of negotiations between L. I. Brezhnev, general secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet, and M. Koyvisto, president of the Finnish Republic in March of this year, measures were developed within the framework of the commission to maintain the achieved high level of trade and its balanced development in the current five-year plan period.

At the same time, it is planned to begin work on the preparation of a new trade agreement and payments between the USSR and Finland in 1986-1990. The practice of signing such agreements in advance, one- and-a-half to two years before the start of the five-year period, fully justified itself.

Even a brief review of the plans of the commission's work attests to the fact that the distinctive features of the modern stage in the development of economic relations between the USSR and Finland are their large scale and long duration. I am sure that the friendship and good neighborly cooperation between the USSR and Finland will also continue to grow and strengthen in the future.

#### Interview With Khel'ge Khaavisto

Moscow ~~EXONICHESKAYA~~ GAZETA in Russian No 40, special supplement Oct 82 p 5

[Interview with Khel'ge Khaavisto, chairman of the Finnish-Soviet Chamber of Trade, "Full Trust -- Basic Promise of Trade," date and place of interview not specified]

[Text] "Soviet and Finnish business circles created an entirely new style of mutual communications in the area of trade. This style is based on full trust of each other, personal contacts between people and firms," stated Khel'ge Khaavisto, Chairman of the Finnish-Soviet Chamber of Trade, who has participated for three decades in trade between Finland and the USSR.

#### Personal Contacts are Important

"Successful trade between Finland and the Soviet Union depends, first of all, on the quality of the products, their purpose and cost. Personal contacts as such do not affect the success of transactions, but they are very important for trade exchanges. When both sides know each other, it is much easier to make contact and negotiate."

In the Soviet Union -- as in all other countries -- personal contacts and knowing each other are important. How many times have I joked that we, in little Finland, have the advantage -- we know each other. We also learned to understand each other fairly well in trade with the USSR: the firms know each other, they trust the quality of the product, delivery schedules and other conditions of the transactions. This familiarity is the most important thing that makes it possible for us to implement mutual trade between the countries," stated Kh. Khaavisto.

"When visiting the Soviet Union, I was convinced that Finnish firms have a high regard everywhere. We hope to maintain it in the future also."

#### It is Necessary to Care About Contacts

"Frequent trips to Moscow to discuss problems with Soviet colleagues maintain good relations and trust. Correspondingly, when Soviet colleagues come to Finland, it is necessary to maintain contacts and familiarize ourselves with its industry."

"It is also very important to keep promises. Trade with the Soviet Union demands exceptional honesty. Trust in trade between Finland and the USSR is founded on the basis of a reliable trade partnership."

"As trade grows, so do the number of dealers. In the fifties, trade was handled by twenty people. Now this group contains several hundred. At the annual meeting of our chamber alone, 400 to 500 people are present."

"Precisely in the same way do the number of firms, participating in Finnish-Soviet trade grow also. At first, only large firms participated in trade; now large and small firms join in trade relations. Soon each Finnish businessman will, in one way or another, become involved in Finnish-Soviet trade," noted Kh. Khaavisto.

#### Interview With Boris Borisov

Moscow *Ekonomicheskaya Gazeta* in Russian No 40, special supplement Oct 82 p 5

[Interview with Boris A. Borisov, chairman of the Presidium of the USSR Industrial Trade Chamber; "Collaboration Expands Cooperation," date and place of interview not specified]

[Text] The first foreign exhibition in Moscow was Finnish. Almost 200 Finnish firms exhibit their products annually in the USSR," stated B. A. Borisov, Chairman of the Presidium of the USSR Trade-Industrial Chamber.

"The USSR Industrial-Trade Chamber marked the 50th anniversary of its activity in May 1982. Our basic problem is collaborating in the development of economic ties between the Soviet Union and foreign countries, including Finland. The chamber is actively developing and strengthening ties with foreign trade chambers and business associations, and participates in the work of mixed chambers, organizes Soviet expositions abroad and foreign and international expositions in the USSR."

"At present, the chamber has more than 4300 active members. These are leading industrial enterprises, trade and foreign trade organizations, scientific research institutes and design bureaus."

"The Moscow Center of International Trade and Scientific-Technical Ties with Foreign Countries, which operates the 'Sovintsenter' All-Union Association, constantly increases its authority among our partners abroad."

#### Expositions are Contacts and Contracts

The chamber organizes up to 25 to 30 expositions abroad annually. Our country is a constant participant in the largest international fairs."

"The chamber began to organize foreign exhibitions in the USSR in 1946. The first of these was the Finnish industrial exhibition in Moscow."



"While at first there were only two-three foreign exhibitions held annually, now the All-Union Association 'Ekspotsentr' organizes up to 200 exhibitions. In the beginning, the exhibitions were held only in Moscow and Leningrad, but in the past five-year plan period they were held in 55 cities."

"In recent years up to 200 Finnish firms exhibited their products annually at exhibitions organized by our chamber in various cities of the USSR. In 1981, for example, at the 'Molmash-81' International Exhibition, modern equipment was shown by 'Valmet,' 'Konverta,' 'Tkhomeko' and other firms. A great event was the 'Finenergiya-81' Exhibition-Symposium held in Moscow in which over 30 Finnish firms participated. This also reflected the joint work by Soviet and Finnish specialists."

"This year also, Finnish firms and organizations are taking an active part in large international exhibitions held in the USSR. Thus, in the 'Elektro-82' exhibition, well-known Finnish firms such as 'Al'strem,' 'Valmet,' 'Fedsima,' 'Nokila' and others exhibited their products. Some 30 Finnish firms exhibited at the largest international exhibition held this year in the USSR -- the 'Khimiya-82'."

"The Finnish-Soviet Trade Chamber which combines over 40 organizations and firms of both countries actively promotes the development of multisided cooperation between the two countries. The chamber has representatives in Moscow and Leningrad, holds conferences, seminars, exhibitions and meetings between businessmen and specialists of both countries."

#### Interview With Erkki Vaara

Moscow **EKONOMICHESKAYA GAZETA** in Russian No 40, special supplement Oct 82 p 7

[Interview with Erkki Vaara, date and place of interview unspecified]

[Text] Working Group on Cooperation in the Area of Power

"In 1977 the Permanent Intergovernment Finnish-Soviet Commission on Economic Cooperation decided to set up a working group on cooperation which was entrusted with monitoring the implementation of a long-term program for cooperation up to 1990 in the area of power. The problem before the group is the development of Finnish-Soviet cooperation in power economy," stated Erkki Vaara.

"Along with saving electric power, the cardinal work of the group was cooperation in building electric power plants. The working group strove to help promote positive experience in building nuclear, thermal and hydroelectric power plants as efficiently as possible. At present, the question is on the possibility of a 1000 megawatt or, alternatively, a 500 megawatt nuclear electric power plant in cooperation with the USSR. As far as TETs are concerned, it may be noted that last year Finnish enterprises concluded an agreement to supply control systems and monitoring-metering devices for two electric power plants in Perm'. Cooperation is also developing in building hydroelectric power plants. Cooperation in building electric power plants is not limited any more by Finland and the USSR. Of special interest are the possibilities for cooperation with third world countries where a number of promising joint projects have been started."

"Finland imports from the USSR raw petroleum and petroleum products, natural gas, coal, coke, electric power, nuclear fuel for AES and a small amount of peat. At present, the imports of such products exceed 80 percent of all Finnish imports from the USSR. Moreover, a considerable quantity of power equipment and machines is imported from the USSR. The Soviet Union participated in the construction of two AES, two TETs and in laying a gas pipeline on Finnish territory. With respect to increasing the imports of fuel, we must say that the most promising are natural gas, coal, coke and peat. At present Finland is studying economic and technical premises to expand the purchases of natural gas. Moreover, we are ready to buy coal, coke and peat in considerably larger quantities than heretofore from the USSR."

"On the problem of export trends, I would like to reply as briefly as possible. I date to suggest that the possibilities of expanding exports to the USSR lie in the area of mechanisms and flow-line production systems that save power. Finnish enterprises are as interested as before in delivering various control systems and monitoring-metering devices to Soviet AES and TETs. Educational training equipment created for the needs of electric power plants has become the latest sphere of cooperation."

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